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ASHRAE REGION 2 NEWSLETTER

Greetings from your Region II Director and Regional Chair,

This is our 2nd regional newsletter. It is designed to keep our regional members informed. Suggestions are welcomed and encouraged.

Despite poor weather in the northeast, the winter meeting in Orlando was well attended. Some of the highlights included a welcome party at Seaworld, a combined regional dinner with region xi (1st time for all of Canada), the presidential luncheon featuring an update on our region ii's own David Underwood and his theme Making Connections, and dueling piano's at members night out. There was also a curling bonspiel to kick off the cold climate design guide launch (appropriate considering the cool weather in Florida). I had the pleasure of being shadowed as DRC in the LeaDRS program for the first time by our ARC Ibrahim Semhat who will be reporting on his experience. I strongly encourage everyone who is thinking of a regional position to apply to learn more how society operates. The region is now doing this at both the winter and annual meetings. The region ii website has all the details.

Congratulations to Montreal's Nicolas Lemire for his 1st place technology award. I encourage everyone to submit for a technology award. There are a lot of great design projects out there in eastern Canada. Let's get some recognition for our region ii members from all 9 chapters. ASHRAE is doing a lot more with social media, and there is the ASHRAE exchange to keep up with the latest discussions.

Due to the vast distances involved, the Region at Large (RAL) had assistant RVC positions approved. There were 28 more distinguished lecturers approved bringing the total number to 195. The Technical Committee's (TC'S) had their websites updated to be more user friendly (ahead of completion date). The GGAC committee is putting together new documents to promote ASHRAE certifications and BEQ with government officials. ASHRAE is developing software for our Handbook committee to make it easier to review and share files saving time and money. There is a new app for compliance with energy cost budget method of ASHRAE standard 90.1.

There are 3 Presidential ad hoc's 1. Centralized training and impact on CRC participation 2. Chapter volunteerism and engagement. 3. Building performance alliance and training for operators. Look for more details as they report out in St Louis. There is a combined CRC for regions xiii and RAL in Bangkok Sep 30 – Oct 2 where over 500 people are expected. There is discussion about mega CRC's combining regions together. Stay tuned for more details.

I remind everyone of the ASHRAE webcast hosted by President Underwood Apr 21 Making net zero positive, and the Region II CRC in Moncton Aug 26-28 (registrations due to go live May 1). We had a successful regional planning meeting and president elect training in Montreal Apr 9.

Thank you for all you do for ASHRAE, and I trust you are having a successful chapter year. Remember that the entire regional team is here for you. Please reach out should you have any questions or concerns.

Regards,

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Region II Planning Meeting Group Photo



**My LeaDRS Program Experience Report – Ibrahim Semhat
ASHRAE Winter Conference – Orlando, Florida
January 22 – 27, 2016.**

The LeaDRS program enhanced my inspiration to participate in higher ASHRAE Regional and Society positions. It provided me with deeper understanding of various senior level leadership roles and responsibilities. I shadowed our Director and Regional Chair (DRC), Doug Cochrane, and was introduced to many Society Conferences including Society/Committee structure, Board Meetings, ExComm, TCs/TGs, and social functions. Doug was very informative and helped answer my questions about Society structure and operation. Doug also introduced me to key Society and Regional leaders and staff.



Over six days at the ASHRAE Winter Conference in Orlando Florida, I attended two DRC Meetings, where DRC from all regions shared best practices and success stories. DRC also discussed regional planning strategies and nomination challenges. The Director-at-Large (DAL) of Region XIII presented Region-at-Large (RAL) Strategic Planning Report, where I gained valuable understanding of the structure of RAL. RAL has become Grassroots to chart the future course of the region and address the operation strategy of RAL in the years to come. RAL is located on 3 continents with 3 sub regions, 25 chapters and 6266 members. Moreover, DRCs from all regions discussed collaboration between regions including sharing CRC presentations and regional newsletters.



Furthermore, I joined Doug at two board meetings, which involved all of the Executive Committee members, the DRC and DAL's. During the board meetings, the Society executives presented various committee reports including Treasury, Information, Audit, bEQ, Planning, Presidential Ad-Hoc, Chapter Volunteerism Ad-Hoc, Centralized Training at CRC, Technical and Women in ASHRAE. Attending this conference allowed me to experience the mechanisms of running board meetings and witnessed, in person, the inner workings of our Society.



During the Members Council meeting, I joined DRC and RCMR, Isabelle Lavoie, where regional motions were discussed, presented and voted on. I gained valuable experience and exposure to how Members Council meetings function and how motions made at the chapter and regional levels work their way up to Society. I also learned the process of presenting these motions and then voting on them by Members Council Committee.

Throughout the conference, I was invited to join DRC and Society executives on several social functions including a Welcome Party at Sea World, VIP Luncheon, President Luncheon and Board Dinner. These social events helped me expand my ASHRAE network through meeting ASHRAE executives and staff, in addition to establishing links with many experts working in the HVAC&R industry. I witnessed these individuals' passion and dedication to serving their chapters, regions and Society through numerous and different ways they were involved with ASHRAE. This experience has increased my passion and desire to serve ASHRAE at both Regional and Society capacities.



Finally I would like to express my gratefulness to our strong Region II, DRC Doug Cochrane and YRC Audrey Dupuis for giving me this opportunity to participate in ASHRAE LeaDRS program. ASHRAE LeaDRS program was an eye-opening and a rewarding experience. For individuals who would like to be involved in ASHRAE at Regional & Society Levels, I highly recommend applying for either Leadership U and/or the LeaDRS programs.

Congratulation to Sharlene Innes

from the NB/IPE chapter



She'll be our Region 2 LEADRS
participant at the
ASHRAE 2016 Annual Conference
St. Louis, Missouri

ASHRAE Standard 90.1-2010 UPDATE

New ASHRAE Application Automates Compliance Calculations for Standard 90.1-2010
 ATLANTA – A new web application from ASHRAE automates the calculations needed to show a building project's compliance with Standard 90.1-2010. The 90.1 ECB web application is a tool for modeling compliance with ANSI/ASHRAE/IES 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings, using the Energy Cost Budget (ECB) method in the standard.

The application allows users to input project parameters and then calculate the proposed design's projected performance and compliance, with the results exportable in a workable spreadsheet for project use," Drake Erbe, chair of the Standard 90.1 committee, said.

The application is accessible from desktop, tablet or other device. It allows users to store project information in one place for easy reference and comparison.

The app is free of charge to users. To learn more, visit 901ECB.ashrae.org.

Chapter Regional Conference 2016



This summer, the NB/PEI Chapter will be hosting the Region 2 Chapter Regional Conference, which will be held at the Delta Beausejour in Moncton, New Brunswick. The exact dates of the conference will be August 25th to 28th, 2016. Plans are currently underway, with several social events planned for both members and companions, including a Boat Cruise on Shediac Bay where attendees will have the opportunity to pull up a lobster trap from the water and enjoy a nice lobster feed (other food options will be made available) with someone demonstrating the correct way to eat a lobster. In addition, there will be a technical presentation presented by ASHRAE Distinguished Lecturer Tim J. McGinn, P.E., from the Southern Alberta Chapter.



Details for this conference will follow in the coming months. If you have any questions, do not hesitate to contact Dan Boudreau, the CRC 2016 General Chair, at dboudreau@mcw.com.

ASHRAE's HVAC Design Training

Expand your knowledge and understanding of the fundamentals and technical aspects to design and maintain HVAC systems. ASHRAE HVAC Design Training incorporates the latest information of Standards 55, 62.1, 90.1 and 189.1.

ASHRAE currently offers 11 training dates throughout the world:

- February 22-26, 2016–Houston, TX
- March 14-18, 2016–Atlanta, GA
- April 11-15, 2016–Miami, FL
- April 25-29, 2016–Minneapolis, MN
- May 9-11, 2016–Halifax, Canada
- May 16-20, 2016–Vancouver, Canada
- May 23-27, 2016–San Francisco, CA
- May 25-27, 2016–Hong Kong
- May 30-June 1, 2016–Kuala Lumpur, Malaysia
- June 6-10, 2016–Cleveland, OH
- June 13-17, 2016–Atlanta, GA

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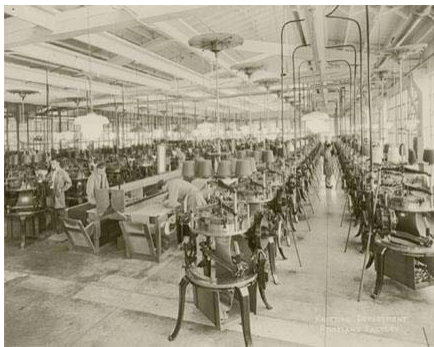
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20151216 Spotlight Article - George Menzies Biography



President ASHRAE Niagara Chapter September 1971

Born in Hamilton Ontario in January 1939, George Menzies was a surprise to his parents, who already had a daughter of 20 years. During the 1920's his father (also called George) was a chauffeur, driving a Cadillac for the owner of Mercury Knitting Mills. Times became hard in the early 1930's and through his Masonic Lodge connections, George Sr. purchased a Dodge Fargo truck and began a successful business delivering goods for companies like Fuller Brush, Lifesavers, and Bell Thread.



Mercury Knitting Mills



Dodge Fargo Truck

George Jr. started school a little early because of his January birth, which meant that his peers were generally a year older. At age 6 he got his first job, selling LIBERTY Magazine (similar to TIME) – he was paid 2 cents per copy. By age 8, he had graduated to accompanying his Dad in the truck during summer months. One regular place of delivery was the local steel mill, where children were not allowed, so he had to cower on the floor of the truck so his Dad could drive in. This was his first experience of the steel industry and he became fascinated by it.

At age 10, he had his first full-time job – at a bake shop. The job was actually 7-days per week; on weekdays his task was “Punching Tarts” (forming pastry shells ready for filling), and he made cakes on weekend mornings. He had a quota of tarts to produce – 200 dozen per day! Of course the actual



“punching” was done by a machine, and he still has a scar where the machine took a chunk out of his forefinger.

By age 13, his father’s trucking business was growing and there were two trucks, one being driven by an uncle. Each evening after school, George Jr. was encouraged to park the two trucks in the alleyway behind the family home, and in this way he learned to drive. In the summer of his 15th year he was actually driving one of the trucks without a driver’s license – he simply carried his Dad’s which had the same name on it (but not the same birthdate...). On January 29, 1955, he drove a 1954 Oldsmobile '88 to an official driving test. He managed to drive one block before the testing official asked “Have you driven before? How far? 1000 miles? Take me back to the office, you passed the driving test”. A beaming George Jr. left with a smile on his face.



Oldsmobile '88



McMaster University logo

Two of George’s uncles were engineers with the railway, in charge of steam locomotives. His parents had been pushing him towards a career in engineering, which he originally mistook to be a train engineer. This was not the case and when McMaster University opened its Engineering program in 1958, George was accepted in the first enrolment of 50 students. His Dad bought him his first car, a 1936 Dodge, and he promised not to drink and drive. Halfway through his first year at University, his brakes failed due to corroded lines, and he narrowly escaped disaster driving down a steep hill – the car full of his buddies.

Around this time his father suffered a stroke which effectively brought his truck driving to an end. He offered the trucking business to George Jr., who elected to remain in University – much to his father’s delight. He was rewarded with a brand new 1960 Plymouth. Eventually George chose to specialise in Mechanical Engineering, and the class dwindled to about 26.



1936 Dodge



1960 Plymouth

During the summer breaks from University, George worked in the machine shop at Stelco Hamilton, a large steelworks. He was involved in maintaining the hoist equipment on the many cranes used in the works. It was common for undergrads to work part-time in the plant but a strike eventually caused him to be laid-off. A chance meeting with a project manager for the new Port Elgin Nuclear Plant (now known as the Bruce Facility) brought him work as a surveyor – for the 6 mile road leading to the site. He had taken two weeks of surveying as part of his first year at University and he soon got the hang of it. He worked on this road for two summer breaks and became quite strict with the contractors – ensuring that the correct thickness of tarmac and road bed was used throughout.



Stelco Hamilton Sign



Stelco Hamilton Works

By year three of University the class only had about 8 students left. After finishing year four the Dean of the University threw a party for the students and revealed that anyone who had passed year three would not have failed year four – but the students did not know that. And so it was that he graduated in 1962 with a Mechanical Engineering Degree.

In the last months of his final year he attended job interviews with the likes of Westinghouse, Ontario Hydro, and Stelco, who realised he had worked with them before. They offered him a job inside a minute and he was happy to stay in his home town. He started an 18 month training program – and learned a different task each month, working in the blast furnaces, coke ovens, steel making, eventually getting a thorough grounding in all major functions of the steel works.

His favourite month was spent with a group called Utilities which had a variety of divisions, one of which was ventilation. This was January 1964 and after a couple of months he was actually in charge of the HVAC division, largely concerned with maintenance of ventilation equipment. He had some technicians under him who changed filters and they generally ensured that new systems could be serviced easily. By 1965 he was used to dealing with contractors and he was invited to his first ASHRAE meeting – on the top floor of the Hamilton Professional Arts Building. He was surprised to see many of the contractors at the meeting and he was suitably impressed. He asked his boss if he could join ASHRAE which he did in November of that year.

George's first CRC was Quebec City in May 1971. At this CRC, Montreal's Hay Murray – then Research Promotion Regional Chair - agreed to create ASHRAE Research Canada so businesses in Canada could write off their contributions. This was in place by the following CRC. The photo at right shows George on the left, with Andy Boggs, ASHRAE's Executive Secretary at the 1971 Quebec City CRC.



In 1972 Niagara Chapter was renamed as Hamilton Chapter, and here George receives the new banner on March 16, 1972, from administrative head of ASHRAE Andy Boggs.

On June 1, 1972, Hamilton Chapter sponsored a new chapter in London Canada to be known as "London Canada Chapter", and here George hands over their gavel and some seed money at a joint golf day.



George was Director & Regional Chair 1977 thru' 1979 and here he was present at Ottawa's Silver Anniversary celebration in October 1977.

George's career was blossoming nicely at this point and the Stelco management team always involved him at the planning stage of any expansion. He always stressed that HVAC systems should be openly designed to allow for easy servicing.

The plant operated 24 hrs/day 7 days/week and one area of concern was the "Pulpit" room directly over the rollers for red hot steel ingots – which was so uncomfortably hot that the operators could only stand it for 30 minute shifts. It occurred to George that if the room could be air-conditioned, the 30 minute shifts would be a thing of the past, and he estimated that this would save the company about \$250k/year. He designed a total revamp of the Pulpit and provided cooling with a 7.5 Ton refrigeration system. All piping was stainless steel flex and the heat transfer coils had to be copper tube copper fin because the works atmosphere was so

corrosive. The airflow into the Pulpit was about 1200 CFM, passing through five stages of filtration – final being HEPA.



Steel Ingots being rolled



Modern Control Pulpit

There was actually a larger Engineering Group (full of theorists) and gradually George's division was stealing work from them. He eventually had air conditioning installed in the main works lunch room – and he was a popular guy!

Years of success went by but 1990 brought a crippling strike to the plant. Auditors got involved and they discovered how extensive George's division had become, with its own sheet metal shop, and rented equipment provided by the union. They had been building their own ventilation equipment for years – and all this came to an abrupt halt. About 7000 workers were laid off, with about 1200 in Engineering trades, downsizing and outsourcing being the new mantra.



George had managed to become a Registered Occupational Hygienist (ROH) over the years. The guy in charge of the lay-offs was nicknamed “Chainsaw Bob” – and he knew George's capabilities. He suggested that George could remain employed if he switched to the Health & Safety Group. He wanted someone who would actually find solutions to problems, not wander about moaning about them. Therefore he became the sole survivor from the Engineering Maintenance Division.

He worked for this Health & Safety Group for five years and when he joined, it had 20 employees, all of whom were chemists. George made 21 and he was the guy who found practical solutions. Methods were changing at shop floor level and the type of fire brick being used now contained large amounts of silica. These bricks were constantly being replaced and were cut to shape in-situ – with consequential dust clouds. His expertise was used to great effect with the design of a large fume extraction system over the work area.

George has fond memories of those five years except for the fact that his boss was very timid and always afraid of doing anything that might offend Chainsaw Bob. Eventually he could not take it anymore and made enquiries about when he could retire with a full pension – and on August 16 1994, he gave one year's notice. He had very sensibly opted for a 2% employer-matched pension contribution way back in 1962 and he was happy to leave.

On August 17 1995 he and his wife Gail headed south to Florida in a Nissan pickup truck. They returned after three months in time for Christmas, sporting fine tans – but George was feeling BORED. Through an ASHRAE connection, he heard about a company called Madok Industries in Brantford Ontario requiring some H&S help. They manufactured Heresite-coated heat transfer coils and required about 4 hours/week of George's specialized knowledge. Word soon spread that he was available for consultation and "GM H&S Consulting" was born.

George's ASHRAE involvement spans 50 years, highlights of which are too numerous to properly list here. When asked, he noted that he and his wife Gail have thoroughly enjoyed visiting the many ASHRAE meeting locations throughout North America which they may have not visited otherwise. Gail also participated as the CRC Secretary for many years and got to know and make friends with many of the ASHRAE Executive.

Gail and George seated with their daughter Suzy, in the new Hamilton Tigercats Stadium (Tim Hortons Field) during the August 2015 Hamilton CRC.

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The evolution of our ASHRAE, our logos and banners – why there is a new chapter banner

In the late nineteenth century, the science of heating and ventilation was not well understood. Most of the work was done by contractors of which very few were educated or had any formal training in engineering. Installations of heating and ventilating systems were based upon the ancient rule of thumb, and relied heavily on calculations related to data in fan manufacturers' catalogues. It was during this period, the Master Steam and Hot Water Fitters Association was formed in



1889 to protect the interests of the contractors. They developed a logo as shown. In this period, more scientific approaches to heating and ventilation were being developed and imported from Europe, particularly from England. Some association members were interested in learning more about these scientific approaches, so some technical papers were now being presented at the Association's meetings. This new format was not generally accepted, since the majority of the members were business and salesmen and not interested in papers and presentations on the arts and sciences of heating and ventilation, but rather, they wanted to concentrate on papers discussing business matters.

The difference in philosophy became evident during the Association's 1894 National Convention when three technical papers were presented by David M. Nesbit, of London, England; Edward P. Bates, of Syracuse, New York; and Arthur Walworth, of Boston, Massachusetts. The attendance and discussion on these papers was surprising popular. The Association quickly reacted by passing a resolution that, in the future, all heating and ventilation technical papers must only take ten minutes to read. This action was justified because the majority of the membership of Association was business men anxious about getting contracts and making money. The engineering members were a decided minority.

As a result of the conflict, a Mr. Hugh J. Barron wrote an article about the situation and submitted it to Mr. Louis H. Hart, who at the time was the business manager of the publication Heating and Ventilation. During a meeting to discuss the article's publication, a discussion occurred about forming a society to give consideration to engineering matters connected with heating and ventilation only. After more discussion and getting positive feedback from fifty to seventy-five engineers known to be interested in this chosen line of work, it was determined that an new organization should be formed. As a result, 25 invitations were sent to engineers in New York City to attend a meeting at the offices of the Heating and Ventilation Publication on Thursday, August 2, 1894. Sixteen people attended and they became known as the Committee of Sixteen. This initial group formed a Committee on Organization who worked over several weeks to put together an organizational structure. They eventually sent out invitations, and circulars to 157 engineers explaining the necessary qualifications to become a charter member of the new organization.

A meeting was scheduled at 3:00 p.m. on September 10, 1894 at the Broadway Central Hotel, in New York, New York. Mr. Fred P. Smith was elected temporary chairman to run the meeting, and Mr. Louis Hart was elected temporary secretary. This inaugural meeting was purely a business meeting. There were seventy-five people who accepted the invitation and elected to be charter members of the new association. Mr. Smith defined the objects, advantages and policy of this proposed society. He spoke about the importance of good fellowship to the

society's success, especially with respect to discontinuing the practice of discrediting another engineer's work when presenting a competitive bid. "It is only through the united efforts of the members of the society that we may expect to attain that improvement for which we are looking. There is no reason in the world why the society cannot, if properly managed, aid us in raising a high standard of work, and regulate the price we ought to get for our work".

The first order of business was to choose a name for this new society. The debate that followed was long and spirited. Discussions included whether to stay just in America or to include "International" in the name since foreign engineers had been invited to become members. It was finally decided that the heating and ventilating engineering required in America alone would be a sufficient task for the society for many years. It was decided to call the society be called "The American Society of Heating and Ventilating Engineers (ASHVE)."



The logo would be:

Much more discussion occurred on the proposed Constitution and By-Laws section by section. The new Constitution stated eight objects of the Society that would guide its work in years to come as we know today:

- The promotion of the arts and sciences connected with heating and ventilation, and to encourage good fellowship among its members.
- Improvement in the mechanical construction of the various apparatus used for heating and ventilation.
- The maintenance of a high professional standard among heating and ventilating engineers.
- To establish a clearly defined minimum standard of heating and ventilation for all classes of buildings.
- To favor legislation compelling the ventilation of all public buildings in accordance with the standard of this society.
- To encourage legislation favorable to improvement in the arts of heating and ventilation, and to oppose legislation hostile to the business of the engineer.
- The reading, discussion, and publication of professional papers, and the interchange of knowledge and experience among its members.
- To establish a uniform scale of prices for all professional services.

The final order of business was to elect officers to serve until the annual meeting.

The Society was then officially incorporated in the state of New York on January 24, 1895. To comply with the laws of this state, the date of the annual meeting was specified in the Constitution as the last week in January. Accordingly, the charter members agreed to have their first annual meeting in January 1895, at which time, papers on heating and ventilation topics would be read and discussed. The Constitution also specified that the Society would have a Semi-Annual meeting as well, though the first one would not occur until 1897. The dates of January 22-24, 1895 were confirmed for the first Annual Meeting. The Society's first President, E.P. Bates called the meeting to order at 10:50 a.m. on January 22, 1895 in the hall of the American Society of Mechanical Engineers, 12 West 31st Street, New York. Secretary Hart reported that the Society had seventy-five members, and it was reported that since its founding, the Society had received \$750.00 and had expensed \$256.82 for a total of \$493.18 cash on hand.

The Constitution and By-Laws established four levels of membership: Members, Honorary Members, Associates and Junior. Members and Associates were required to pay an initiation

fee of \$15.00 and annual dues of \$10.00. The initiation fee of junior members was \$10.00 and their dues were \$10.00. A junior member, upon being promoted to full membership, paid a further initiation fee of \$5.00. Honorary Members were defined as “distinguished persons elected by the society.” – This still exists.

Several committees were formed during the first meeting. They were:

- The Committee on Tests “for the purpose of making such tests as may be for the interest of the society”
- Committee on Standards “to establish a clearly defined minimum standard of heating and ventilation for all classes of buildings”
- Committee on Compulsory Legislation “to favor legislation compelling ventilation of all public buildings in accordance with the standards of this society”
- Committee on Uniform Contract and General Conditions of Governing Specifications “to establish a uniform scale of prices for all professional services”
- Nominating Committee for the purpose of identifying and nominating candidates for officers, Board of Managers and Council

Beginning in 1895, the Society documented its work by publishing the proceedings, papers and discussions from the annual and semi-annual meetings in Transactions of The American Society of Heating and Ventilating Engineers (and ASHRAE still does today.) President Bates said of this new society and the work to be done, “We need to look backward but a very few years to find that our profession was unknown. The rapid strides of modern civilization have created many new professions, and ours among them. There is a wide field open before us, and it yet remains to be seen how well we shall occupy it. The child is born, and it gives great promise of a grand future.”

In 1922 the Society started printing “The American Society of Heating and Ventilating Engineers Guide”- now called Handbooks. This guide included “The Synthetic Air Chart” that was developed by Dr. E. Vernon Hill and adopted by The American Society of Heating and Ventilating Engineers for the purpose of comparing the air conditions in any room with the ideal or standard conditions.

As the Society grew, it developed membership emblems and established awards in recognition of “work done and meritorious services performed in the field of heating, ventilation or air conditioning.” The emblems were to be worn so “Attention is called to your privilege as a member of wearing the Society’s emblem (1925).” One of the earliest ASHVE awards was the F. Paul Anderson Award named after named for F. Paul Anderson, ASHVE president in 1927 and an ASHVE laboratory director from 1921 to 1925. This award was first presented in 1932 to Dr. Willis H. Carrier. It is still the Society’s major award today.

Parallel with the development of new ASHVE Society, refrigeration was moving in the same direction.

By 1885, refrigeration as an industrial practice was already established in the United States. Recognized as a world leader in refrigeration, the main applications were the production of ice and beer and cold food storage. Although Australia and New Zealand were also industry leaders, their primary uses were mechanical refrigeration for food preservation, for shipping frozen meats to other countries and for producing beer.

By 1900, manufactured ice in the United States could be made for low cost and was easier to store than natural lake ice as it was not dependent on weather. Ice manufacturers’ starting

claiming that their product was also more pure as many lakes were now considered as polluted. For many years, there continued to be an intense competition for the ice market, but with the invention of electric and gas household refrigerators, the market changed for household ice. The natural ice market virtually disappeared by 1950. Many Life Members still today remember this era.

In 1903, the American Ice Machine Builders Association was formed. This group's members were primarily manufacturers, and they pointed out the advantages of working together, cooperating with other organizations, and of sharing information. With many technological advances and new applications being developed, a need for fundamental data on which to base standards within the refrigeration industry was becoming a necessity. At that time, the only engineering organization in the United States suitable for engineers interested in refrigeration was the American Society of Mechanical Engineers (ASME). There were some outstanding papers and discussions presented at ASME meetings from 1889 to 1892, but by the turn of the century, ASME members interested in refrigeration "found very little on the programs bearing directly on their professional work,"

So similar to the story of ASHVE, there was to become a Society of Refrigerating Engineers. Mr. William H. Ross, who was employed by Cold Storage and Ice Trade Journal and was secretary of the Eastern Ice Association, organized a meeting of thirty to forty refrigeration engineers on April 2, 1904 at the ASME headquarters in New York City. They met to discuss forming a new society for refrigerating engineers. Following discussions, a committee was appointed to draft a Constitution and by-laws. On December 4 and 5, 1904, in New York City, these engineers met again and adopted the Constitution and By-Laws and elected officers, thus forming The American Society of Refrigerating Engineers (ASRE) – the only engineering society in the world solely dedicated to promote the arts and sciences connected with refrigerating engineering. There were seventy-four charter members of this new society.

During the first meeting of the Council, held on January 14, 1905 in New York City, William H. Ross was appointed as secretary of the Society. One year later, the Society convened its First Annual Meeting in the chambers of ASME in New York City on December 4 and 5, 1905. The Society with the logo ASRE immediately began publishing the papers read at its meetings in the Transactions of The American Society of Refrigerating Engineers. The Transactions also included minutes of Society meetings. The Society's Constitution and By-Laws established three levels of membership: Member, Junior and Associate. Each member paid an initiation fee of \$5.00, and membership dues were set at \$10.00 for Members and Associates and \$5.00 for Junior members for the first six years of membership, after which their dues would be the same as Members and Associates. The emblem – logo, was the seal of the Society and measured 5/8 inch in diameter. Although the Society was organized as a national institution, by 1906 it already had members from Canada, England, India, the Argentine Republic, Australia and New Zealand. Membership in 1906 totaled 146.



In the first decade of the 20th century, neither society ASHVE and ASRE had much in common with the other. This soon changed as heating and ventilating engineers learned to control humidity by using mechanical refrigeration equipment to cool the air. Then Willis Carrier wrote an epic paper on the rational psychrometric formulae which was published in 1911. This

established the scientific basis that he and others would use to promote the concept of conditioning the air. This new field of air conditioning was further advanced by technological accomplishments in the household refrigeration industry. Along with similar changes in other industries with mass market production capabilities, and capital investments in new technology, new developments included direct expansion systems, extended surface condensers and evaporators, thermostatic valves and hermetically sealed compressors. Thus, air conditioning became a field of interest to many members of both ASHVE and ASRE. Also, heating systems were evolving from steam and hot water to forced warm air systems, combining the heating and air-conditioning functions. ASHVE changed its name to the American Society of Heating and Air-Conditioning Engineers in 1954, or ASHAE. The newest logo for ASHAE is:



That same year, the Refrigerating Engineers mailed proxy ballots to its membership proposing to add Air Conditioning to its name, but not enough votes were received and the proposal was lost. Then a joint committee with the two societies was formed in 1954 to determine how the societies could cooperate without consolidating. It was quickly concluded that the idea of merger would be better and it gained wider acceptance. By 1958, ASHAE's membership total was 11,700 and ASRE's was 7,000. About 60% of the activity in each society was devoted to air conditioning. The 1958 President of ASHAE, Mr. Elmer Queer, was for the merger indicating that an extensive research program could be carried out by the merged Society, and the new Society would continue to conduct a comprehensive program in the development of codes and standards, as now carried out by ASRE. Merger had divided support from members. It was agreed to proceed. As required by the Membership Corporations Law of New York State, the Plan for Merger was submitted to the memberships of ASHAE and ASRE, and required approval by two-thirds of those voting of each society, either by proxy or in person.

ASHAE held a special meeting in Chicago on December 1, 1958 in the Conrad Hilton where ASHAE members approved the plan, with 5,307 voting in person or by proxy in favor and only 405 against. ASRE's vote was held at the opening session of its Annual Meeting in New Orleans on December 1. Several tense moments were held until 4:40 a.m. in the morning as the proxies were counted. When all votes were tabulated, 86% of ASRE's members had voted with 3,516 in favor and 1,293 against. After the vote, quite a few of the refrigeration people dropped their memberships. They feared they would lose control simply because there are far more people in the heating and ventilating business. This fear still exists today.

The next order of business was what the name of the new organization should become. Many options were considered. So, on the morning of January 29, 1959, in its 55th year, the American Society of Refrigerating Engineers ceased its corporate existence. At the same time, in its 65th year, the charter of the American Society of Heating and Air-Conditioning Engineers was amended to bring into corporate existence the consolidated American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

The logo and the associated chapter banners and letterhead would be in use for more than 50 years:



Then at the Society's 2012 Winter Conference in Chicago, ASHRAE announced the latest rebranding effort. President Ron Jarnagin at the time said "ASHRAE's original commitment to HVAC&R engineering excellence remains resolute even as the Society continues to expand its influence into all facets of building design, construction, reconstruction and operation. The repositioning of the ASHRAE brand evolution was an acknowledgement of ASHRAE's broadening scope beyond HVAC&R to include standards, research, publications and educational resources relating to total building design, energy efficiency efforts and sustainable building technologies, otherwise referred to as the total building environment.

The original ASHRAE logo from 1959 was changed to reflect that ASHRAE had changed. And, a new tagline was developed "Shaping Tomorrow's Built Environment Today."



This tagline serves as a promise to all members, and the industry in general, that whatever the future brings in the built community, ASHRAE will be at the forefront for research and guidance. New chapter banners and podium covers, individual chapter and regional letterheads were now made available.

This new tagline shows the world that ASHRAE has expanded into a worldwide Society. It has 12 Regions in the Americas, Region XIII in Southeast Asia, and a Region-at-Large consisting of three Sub-Regions. Sub-Region "A" currently includes Bahrain, Kuwait, Qatar, UAE, Saudi Arabia, Egypt, Lebanon, and Nigeria. Sub-Region "B" currently includes Greece, Romania, Spain, and Portugal. Sub-Region "C" currently includes chapters in India (7), Pakistan (3), and Sri Lanka. In 2016, President Underwood just attended a newly chartered chapter in this region so the numbers may need to be updated on a regular basis.

For many of the older chapters, changing to the new banner with the new logo has been concern and question why change. Kent Anderson former Society Board Member explained to me how the evolution to the new banner and logo format occurred. This was after I had expressed concerns from chapter in Region II. He wrote that what may be missing is when and how ASHRAE evolved from being just an American Society with Canadian and international members, to an "international" HVAC&R Society now. The new trademark has an officially registered logo as "ASHRAE" with the "American" part of the logo and the rest of the wording now dropped as it was shown on the old logo adopted at the time of the merger. As Kent recalls, much of that happened during my term on the Board as a DAL in the 1990's, and much of change was led by Barney Burroughs when he was President. It was also when the overseas Region was created as a Region-at-Large designation for those members who did not have local chapters that could form a region, e.g. most of the European country members fall into that

category. That was also at a time when the logo was redesigned to retain the hexagon shape with the letters “ASHRAE”, with a tag line that said “ASHRAE – An international Society Shaping Tomorrow’s Built Environment Today”. It was a fairly controversial debate at the time between the American members (the bulk of the membership) feeling that ASHRAE ought to focus on primarily U.S. and Canadian HVAC&R engineering, and those who felt ASHRAE had to expand its interests to cover all of the international aspects of HVAC&R technology. This all happened concurrently with the expansion of the regions to include the international chapters in the Far East. A Presidential Ad Hoc Committee worked on both the logo and rebranding issues, as well as expansion of the regional structure with their report. It was then approved by the Society’s Board in January 2012.

For the chapter using the 1959 style of banners, it is time you got on board with the new logo, banner and letterhead now available to you. Hopefully this history helps. For those coming to the next Region II CRC in Moncton this summer, the challenge made at the 2015 CRC in Hamilton was to have all chapters with the new style banner hung in Moncton to make a dynamic background for the annual Chapter Delegate and Alternate picture. Many thanks to Randy Schrecengost, Society Historian and Kent Anderson for their input in this article – great supporters of capturing the Society’s history.

Article prepared by George Menzies, a 50-year active member in ASHRAE who plans to “retire” soon....

2016 ASHRAE Annual Conference — June 25 - June 29, 2016 | St. Louis, MO, USA

ATLANTA – ASHRAE has closed a call for programs for the 2016 ASHRAE Annual Conference, June 25-29, St. Louis, MO.

“A new ‘Smart Building Systems’ track for this conference addresses the revolution in information technology applied to the built environment,” said Tom Kuehn, Conference Program Chair. “Weather and time of day utility rate forecasting, distributed sensors and remote monitoring and control are all included in the track. Topics key to personal success are included in the ‘Professional Skills Beyond Engineering’ track. Programs describing advances in refrigeration technology are given special emphasis and other tracks cover more conventional topics.

Programs were sought for the following tracks: Advances in Refrigeration Systems and Alternative Refrigerants; Fundamentals and Applications; HVAC Systems and Equipment; Smart Building Systems/Remote Monitoring and Diagnostics; Indoor Environment: Health, Comfort, Productivity; Professional Skills beyond Engineering; and Renewable Energy Systems and Net Zero Buildings. Programs were also sought for the fourth annual Research Summit, which reports results on any aspect of ASHRAE-related research. In addition, programs focusing on practical applications and utilizing case studies were requested.

Programs were requested for the following program types: Seminars, which include 1-4 presentations on a similar topic; Workshops, which allow equal time for 1-2 presentations and discussion; and Forums, which are discussion-based sessions with no presentations.

ASHRAE recently closed a call for papers. 123 conference paper abstracts were approved. The papers submitted are currently being reviewed.

The ASHRAE 2016 Annual Conference will take place in St. Louis, MO, at the America’s Center Convention Complex and Marriott St. Louis Grand Hotel, June 25-29, 2016. Registration will open in March 2016. The 2016 ASHRAE Annual Conference will attract some 2,500 attendees and meeting participants.

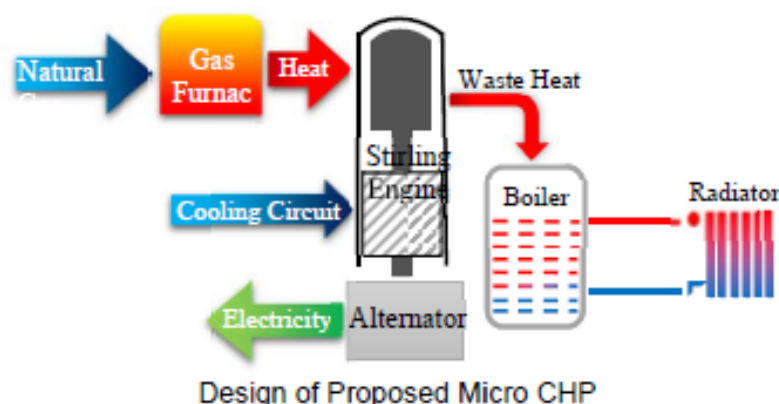
University of Windsor Undergrad ASHRAE Design Project Update

Project Title	Stirling Engine Micro CHP
Executive Summary of Project (Brief Description not exceeding 50 words) If necessary, attach an additional, expanded description on separate sheet and limit description to 2 pages	Stirling engine is an excellent machine for cogeneration applications. It operates quietly with high efficiencies and can utilise almost any heat source, including the heat from the burner in furnaces or hot water boilers and the free solar thermal energy. The project aims at developing a lab setup to demonstrate the usage of the higher temperature heat for producing power while capturing the lower grade, otherwise waste, heat for heating space and/or water.
Expected Duration (Dates of Project)	May 1st, 2015 to April 30th, 2016
Course name and number in which project will be conducted	Capstone Project 06-92-400 &/or Directed Studies in Mechanical Engineering 06-92-441
Anticipated number of students working on development of project	Seven
Plan for involvement of future students (i.e. estimated class size and length of time project will be used)	The working setup will be used by future students in Thermodynamics, Heat Transfer, and Thermofluid; all with a current enrolment of over 120. In particular, the facility will be used to explain the concept of micro CHP. Moreover, extension can easily be implemented, via another Capstone Design project to capture solar energy, for example.
Amount of grant funds requested	\$ 4,900.00
School Contribution?	Yes, Stirling engine and alternator, Technical and machining supports, a computer with licensed software and data acquisition unit.
Industry Contribution?	No
Local Chapter Contribution?	The progress and complete project will be presented at local Windsor chapter and UWindsor student branch.
Other?	No
How will ASHRAE be recognized for their funding of this project?	ASHRAE will be acknowledged in the project report and in the facility. The facility will be housed in the Turbulence & Energy Lab which is open to public. Furthermore, it would be used to promote ASHRAE in related courses such as Air Conditioning and Thermofluid Systems Design.
Anticipated use of funds (please also complete the Fund Expenditures below)	The fund will be used for the purchase of physical parts to build and run the system. Then, the instruments would be used for the measurement of performance.

Cogeneration is a proven technology for improved efficiency, better economy and reduced energy usage footprint. These benefits can be realized over a wide scale of application, from large buildings to residential houses, via Combined Heat and Power generation (CHP) systems. The Stirling engine is one of the most efficient engines, and its external combustion concept and quiet operation make it convenient for cogeneration. A Stirling engine when integrated with a natural gas burner of a typical residential gas furnace, fire place, or hot water boiler, becomes an advanced micro-CHP that can meet varying amount of electricity, heating and cooling needs. Furthermore, such a system is a reliable backup during grid power outages.

The proposed ASHRAE project is to design and construct a lab scale natural gas burner powered Stirling engine micro-CHP for combined power generation and heating. The natural gas burner will provide the heat source to run the engine for producing electrical and/or mechanical power, and the waste heat is captured for space and water heating. The cold end of the Stirling engine will be cooled by a separate coolant circuit powered by the electricity produced by the Stirling engine via an alternator. The ASHRAE prototype will introduce this unique micro-CHP for residential application, compact in size and quiet and clean to operate. To validate the concept and operation, sensors and gauges will be appropriately placed to measure the performance of the system. This will enable detailed engineering analyses to be performed to further improve the performance by adjusting the involved parameters to enhance heat transfer and power generation efficiency.

Once the Micro CHP is running, the system will be used as a laboratory experiment for courses such as Air Conditioning, Thermodynamics, and Thermofluid Systems Design. The setup will explicitly expose the young minds to Stirling Engines and Micro CHP technologies, in addition to demonstrating the working of thermodynamic cycle and heat transfer principals. This unit is also expected to promote the awareness and applications of more efficient power generation and heating systems.



HVAC Design: Level I—Essentials
Location: Halifax, Nova Scotia, Canada
Date: May 9th to 11th, 2016.

ASHRAE's *HVAC Design: Level I — Essentials* training provides intensive, practical training ideal for recent technology or engineering school graduates, engineers new to the HVAC field, those who need a refresher in new technologies, and facility managers, sales representatives and others who need to gain an understanding of HVAC systems.

In three days, gain practical skills and knowledge in designing, installing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the renovated ASHRAE Headquarters building as a living lab. Engineered drawings of the ASHRAE Headquarters renovations will be incorporated to expose attendees to plan reading and a graphical understanding of system design.

Training Topics:

- Fundamentals
- Heating/Cooling Load Calculation
- System Selections
- HVAC System and Components
- Cooling System
- Basic Design of Hydronic Systems
- Basic Design of Air Systems
- Control/BAS
- Sustainable Design
- Project Management and Other Soft Skills
- Introduction to Technical Sales

Upcoming Events

- **ASHRAE Region II CRC Planning Meeting – Saturday April 9th, 2016 | Montreal, Canada**
- **Society Webcast - Thursday April 21/2016 @ 1:00 - 4:00pm**
Realistic Commercial Net Zero Building Design through Energy Conservation and Renewables
www.ashrae.org/webcast
- **2016 ASHRAE Annual Conference — June 25 - June 29, 2016 | St. Louis, MO, USA**
- **ASHRAE Region II CRC Meeting – August 25th – August 28th, 2016 | NB/PEI, Canada**

ASHRAE REGION 2 OFFICERS 2015-2016

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