



Johnstown ASHRAE April 2015 Meeting

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Joint Meeting w/ AIA Middle PA Chapter

- Date: Tuesday, April 21, 2015
- Location: Marzoni's Brick Oven & Brewing Co.
164 Patchway Road
Duncansville, PA
- Speaker: David Hebel
- Topic: ASHRAE 90.1 – 2010/2013 Impact on Building Monitoring Systems
- Time: 5:00 pm: Social Hour
6:00 pm: Dinner
6:45 pm: Presentation
- Cost: \$25/person
- RSVP: Luke Shumaker (lshumaker@hflenz.com)
by 5:00 PM, Friday, April 17

One (1) PDH/AIA LU will be offered

New Tomorrows for Today's Buildings: Existing Building Commissioning

April 23, 2015 | 1–4pm EDT



www.ashrae.org/webcast



Thomas H. Phoenix,
P.E., FellowASHRAE,
BEAP, BEMP



Robert G. Baker,
OPMP, Fellow
ASHRAE

This webcast will feature industry experts who will define the benefits of existing building commissioning for the environment, occupants, operations staff, and overall ownership costs. Viewers will be able to recognize the varied scopes of commissioning, when to apply comprehensive versus focused commissioning, and best practices in existing building commissioning specifications & contracting.



Earn PDHs!

Attend this FREE webcast program and you may

ASHRAE Webcast

2015 ASHRAE Webcast – Thursday April 23

Location: H.F. Lenz Company
1407 Scalp Ave
Johnstown, PA 15904

Speakers: Robert G. Baker
James K. Vallort
Ronald J. Wilkinson

Topic: Existing Building Commissioning

Time: 1:00 – 4:00pm

RSVP: To Luke Shumaker (lshumaker@hflenz.com) by Tuesday, April 21

Three (3) PDHs/AIA LUs/GBCI CEs will be offered

From the Historian’s Desk...

History of Refrigeration Timeline

Automobile air conditioners transition to R-134a refrigerant	1999	The U.S. first major history exhibit on air-conditioning, "Stay Cool! Air-Conditioning America" opened at the National Building Museum in Washington, DC.	
	1993-94	U.S. Senate approves the United Nations Montreal Protocol for substances that deplete the earth's ozone layer.	
	1988	U.S. Senate approves the United Nations Montreal Protocol for substances that deplete the earth's ozone layer.	
	1986	Air conditioning joins list of inventions immortalized in the national Inventors Hall of Fame in the U.S.	
U.S. Senate approves the United Nations Montreal Protocol for substances that deplete the earth's ozone layer.	1986	ASHRAE Standard 90-75, "Energy Conservation in New Building Design" has a major impact on U.S. building codes.	
	1975	Home in Tucson, AZ installed a heat pump air conditioner	
ARI's Unitary Equipment Directory features energy efficiency ratios (EER) for the first time.	1975	Chesapeake & Ohio Railroad begins running first overnight train with air conditioning, the "Georgie Washington," between New York and Washington	
	1975	ASHRAE Standard 90-75, "Energy Conservation in New Building Design" has a major impact on U.S. building codes.	
ARI and ASHRAE combine forces for the first co-sponsored International Air-Conditioning, Heating, & Refrigeration Exposition.	1972	Capillary tube refrigerant control invented by Thomas Carpenter	
	1969	54% of new cars equipped with air conditioning	
R-22 becomes standard refrigerant for unitary air conditioners and heat pumps	1968-72	Gas fired absorption household refrigerator marketed by A.B. Elektrolux in Sweden	
	1966	First air conditioned school with no windows (New York)	
In December, members of ASRE and ASHAE vote to merge into the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).	1958	Two associations, the Refrigeration Equipment Manufacturers Association (REMA) and the Air-Conditioning and Refrigerating Machinery Association (ACRMA), unite to become the Air-Conditioning and Refrigeration Institute (ARI) on April 23.	
	1953	Air cooled electric self-contained household refrigerating unit, the DOMELRE, marketed by Fred Wolf Jr.	
Beginning of commercial development of heat pumps (U.S.) - 2000 made in 1954, 76,000 in 1963, 300,000 in 1976	1950	First International Refrigeration Exposition held in Chicago	
	1949	Pellier – Thermoelectric domestic refrigerator.	
Air cycle refrigerating machine used to cool an airplane (Lockheed)	1944	First International Congress of Refrigeration, Paris	
	1942	Heat pipe invented by R.S. Gaugler, (U.S. patent issued in 1944)	
Absorption refrigerating machine using lithium bromide, water. Studies by Sereel and Carrier. The first large Carrier machine was made in 1945.	1940	First hospital to be air conditioned, Boston Floating Hospital	
	1939	Freeze-drying of penicillin. First experiments in Great Britain. Industrial preparation in 1943.	
Packard markets first successful year-round auto air conditioning system	1939	Window air conditioner marketed by Philco-York.	
	1938	Albert Herne, co-inventor of the Chlorofluorocarbon Refrigerants, synthesizes refrigerant R-134a. In 1980 it was hailed as the best non-ozone depleting replacement for Chlorofluorocarbon	
Chesapeake & Ohio Railroad begins running first overnight train with air conditioning, the "Georgie Washington," between New York and Washington	1936	United Air Lines uses air conditioning in its three mile a minute passenger planes	
	1936	Frigidaire markets "Hot-Kopf" year – round central system air-conditioning system for homes	
Home in Tucson, AZ installed a heat pump air conditioner	1930	Chlorofluorocarbon refrigerants synthesized by General Motors Research Lab team of Thomas Midgley, Albert Herne and Robert McNary for Frigidaire	
	1928	The Aerologist, the first air conditioning trade journal, published by E. Vernon Hill	
Capillary tube refrigerant control invented by Thomas Carpenter	1926	Clarence Birdseye began experiments in quick-freezing	
	1925	Carl Linde publishes paper using a rigorous thermodynamic approach to refrigeration, "The Extraction of Heat at Low Temperature by Mechanical Means."	
54% of new cars equipped with air conditioning	1925	Charles Tellier used refrigerated ship Le Frigorifique to send meat from France to South America	
	1925	First air conditioned house in U.S. San Lorenzo, CA by M. Dillenborg of San Francisco.	
Gas fired absorption household refrigerator marketed by A.B. Elektrolux in Sweden	1925	Committee to define "standard ton of refrigeration" established by American Society of Mechanical Engineers	
	1925	The trade journal <i>Ice and Refrigeration</i> began publishing	
First air conditioned school with no windows (New York)	1916	Cold storage plant using mechanical refrigeration by Thomas Mort of Australia	
	1916	Peter Van der Weyde patented thermostatically controlled refrigeration system	
Two associations, the Refrigeration Equipment Manufacturers Association (REMA) and the Air-Conditioning and Refrigerating Machinery Association (ACRMA), unite to become the Air-Conditioning and Refrigeration Institute (ARI) on April 23.	1914	Ferdinand Carré patented aqua-ammonia absorption refrigeration.	
	1913	John Harrison began experimenting with vapor compression for ice making in Victoria, Australia.	
Air cooled electric self-contained household refrigerating unit, the DOMELRE, marketed by Fred Wolf Jr.	1913	Constant superheat (thermostatic) expansion incorporated in a multiple evaporator refrigeration system patented by Albert Marshall	
	1911	M. T. Zarschenezoff began experiments in quick freezing	
First International Refrigeration Exposition held in Chicago	1913	Caoutchoucine, a distillate of natural rubber, used as a refrigerant by John Hague in the first working model of a vapor-compression refrigeration machine.	
	1911	Thomas Moore of Maryland received US patent for a refrigerator. First patent issued in US on refrigeration.	
First International Congress of Refrigeration, Paris	1908	Willis Carrier patents "dew point control" system for precisely controlling humidity in a room.	
	1906	The term "air conditioning" coined by Stuart Cramer	
Heat pipe invented by R.S. Gaugler, (U.S. patent issued in 1944)	1906	Amour Building, Kansas City, MO, installed dual-duct air conditioning system, each room individually controlled with a thermostat	
	1906	Hermetically sealed refrigeration system patented by Marcel Audiffren in France	
Freeze-drying of penicillin. First experiments in Great Britain. Industrial preparation in 1943.	1906	First air conditioned house in U.S. San Lorenzo, CA by M. Dillenborg of San Francisco.	
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Calendar of Events

ASHRAE Johnstown Chapter 2014-15 Schedule of Events

Meeting Date	Theme/Events	Topic	Speaker	Location
September 18, 2014	Sporting Clays	RP Social Event	<i>Let your aim do the talking</i>	7 Springs Resort
October 14, 2014	Student Activities / YEA	VRF & Standard 15	Dave Heckler	Boulevard Grill Warehouse Room Johnstown, PA
November 19, 2014	ASPE Joint Meeting	Seismic Bracing of Non-structural Components	Eric Grant	Rizzo's Italian Restaurant Windber, PA
December 9, 2014	Distinguished Lecturer Membership Promotion	CO2 Monitoring for Outdoor Airflow and Demand Controlled Ventilation	Thomas M. Lawrence	Boulevard Grill Johnstown, PA
January 13, 2015	Research Promotion	Energy Recovery in Laboratories	Joe Thorndal	Boulevard Grill Johnstown, PA
February 10, 2015	Awards Banquet Student Activities	Sustainable, Hazard-resistant Construction Using Indigenous Materials	Kent Harries	University of Pittsburgh at Johnstown
March 10, 2015	ASPE Joint Meeting	Greywater Recycling Facility Tour	Mike McCluskey Paul Brezovec	CTC Office Johnstown, PA
April 21, 2015	AIA Joint Meeting	ASHRAE 90.1 Impact on Building Monitoring Systems	David Hebel	Marzoni's Duncansville, PA
April 23, 2015	ASHRAE Webcast	New Tomorrows for Today's Buildings	Existing Building Commissioning	H.F. Lenz Office Johnstown, PA

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