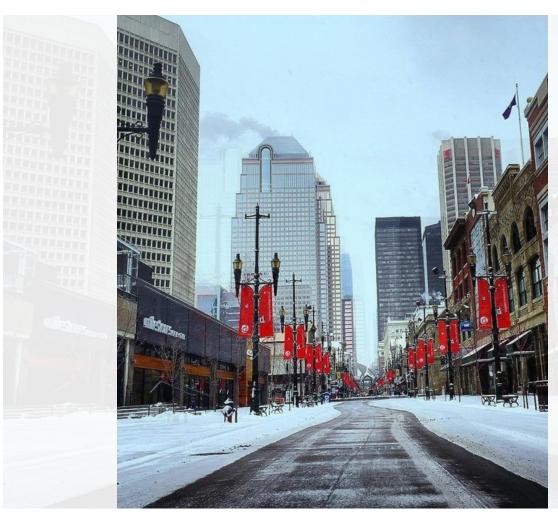


Official Publication of the Building Operators Association (Calgary)











March 2022

NEED POWER?

GENTECH FIELD SERVICES IS A TURNKEY POWER GENERATOR COMPANY SERVING CALGARY AND SURROUNDING AREAS. THE GENTECH FIELD SERVICES TEAM SPECIALIZES IN LIFE SAFETY EQUIPMENT FOR COMMERCIAL BUILDINGS AND ON CONSTRUCTION SITES. WE PROVIDE SCHEDULED AND EMERGENCY SERVICE FOR ALL COMMERCIAL DIESEL GENERATORS AND FIRE PUMPS. CONTACT US TODAY TO SCHEDULE A SERVICE OR FOR AN ESTIMATE ON A NEW OR USED GENERATOR.

OUR TURNKEY INSTALL SOLUTIONS INCLUDE:

RENTALS

PRODUCTS

ENGINEERING

SERVICE















Janitorial Services Window Cleaning Pressure Washing Specialty Services Carpet & Upholstery Move In / Out Cleaning Floor Care & Maintenance Post Construction Cleaning

PH: 403-520-7788 | FAX: 403-663-9911

info@regencycleaning.ca www.regencycleaning.ca













Air Handling Units

HVAC, Plumbing, Refrigeration

as Detection Testing & Service

Retrofit / Replacement General Contracting

Your partner in building

Bay #6 6420 79th Ave SE Calgary, Alberta T3M 2B8 P: 403-230-5519 F: 403-230-5529 E-mail: j.harding@bouldermechanical.net

What's Inside?

VVIIGL 3 III3IUC:			
Executive & Committees	3		
Important Phone Numbers	3		
Presidents Message	4		
Test Your Operator IQ	6		
What are the Benefits of Instant Gas Hot Water Systems	7		
Study Notes! Consequences of Untreated Water in Buildings	9		
KenKen Puzzle	11		
Ideas on How To Prevent Pipes From Freezing	12		
Convoy Protests in Canada & Building Safety & Security	14		
Using The Correct Fire Extinguishers	17		
KenKen Puzzle & Test Your Operator IQ Answers			
February Meeting Minutes	20		
March Guest Speaker & Presentation Topic	20		
Advertising Rates	21		
BOA Calgary Sponsors	21		
Advertisers Directory	22		

Important Phone Numbers

Emergency	911
Alberta Boiler Association	403 291 7070
Alberta Labour (Emergency)	403 297 2222
Buried Utility Locations	1 800 242 3447
City Of Calgary (All Departments)	311
Dangerous Goods Incidents	1 800 272 9600
Environmental Emergency	1 800 222 6514
Poison Centre	403 670 1414
Weather Information (24hr)	403 299 7878



John Rutherford

* Boiler Service * Consults * Parts * Upgrades *

Quality Combustion & Controls Ltd

834, 3545 - 32 Ave NE, Calgary AB T1Y 6M6

Ph (403) 936-0065 Fx (403) 936-0061 jrutherford@Qualityco.ca Qualityco.ca

Executive & Committees

President	president@boacalgary.com
Les Anderson	C: 403 921 0648
Vice President	chairman@boacalgary.com
Mark Arton	(c) 403-305-7029
Associate VP	associate.vice.president@boacalgary.com
Vacant	
Chairman	chairman@boacalgary.com
Mark Arton	(c) 403-305-7029
Treasurer	treasurer@boacalgary.com
Carrissa Speager	(c) 403-969-0329
Secretary	secretary@boacalgary.com
Monika Bhandari	(c) 403-470-4169
Education Committee	education@boacalgary.com
Education Committee Vacant	education@boacalgary.com
	education@boacalgary.com membership@boacalgary.com
Vacant	
Vacant Membership Committee	
Vacant Membership Committee VACANT	membership@boacalgary.com
Vacant Membership Committee VACANT Promotions Committee	membership@boacalgary.com
Vacant Membership Committee VACANT Promotions Committee VACANT	membership@boacalgary.com promotions@boacalgary.com
Vacant Membership Committee VACANT Promotions Committee VACANT Activities Committee	membership@boacalgary.com promotions@boacalgary.com
Vacant Membership Committee VACANT Promotions Committee VACANT Activities Committee Samson Isowode	membership@boacalgary.com promotions@boacalgary.com 403-874-0850
Vacant Membership Committee VACANT Promotions Committee VACANT Activities Committee Samson Isowode Technical Concerns	membership@boacalgary.com promotions@boacalgary.com 403-874-0850
Vacant Membership Committee VACANT Promotions Committee VACANT Activities Committee Samson Isowode Technical Concerns Kyle D'Agostno	membership@boacalgary.com promotions@boacalgary.com 403-874-0850 chairman@boacalgary.com

Front Cover: Winter on Stephen Avenue Mall Calgary, Alberta, by Larry Davies



President's Message



I hope this message finds you and yours well and in good health

The executive has set the date for the "Building Operators Trade show" and have set a date of October 18th, 2022. We have reserved the room at the Danish Canadian Club, and we are contacting the prospective presenters on the proposed date. We have picked a date that is far enough out to assure there is not a false start to the return to isolation this gives the government time to make all the adjustments allowing us to safely have the trade show.

As always, the Trade show is a small affair with a limit to 35 tables for associates. There will be plenty of door prizes and a chance to, after over two years to re-connect with other Building Operators within our industry. Finally, I am beginning to feel a return to precovid days.

Through this whole time, Building Operators have had to work tirelessly under the most extreme conditions. No working from home in this job, and as an essential service, the Building Operators have kept the facilities running and have always been ready to respond to emergencies as they came up. The



Building Operators Association Box 22116, Bankers Hall Calgary, AB T2P 4J5 www.boacanada.ca

Operators are tired, many have left the discipline to pursue other careers. I personally have had many by inquires by operations managers if qualified operators are available for their company to hire and even relocate, this has come from all jurisdictions. I am sure you already realize this, the Building Operator on your staff is a very important part of your team.

We continue our Monthly Meetings with guest speakers presenting topics relevant to our industry. Mark Arton works hard at lining speakers up for the meetings and we will insert the speakers with the topic and month they are to present.

To view what the Association already has in place, please go to our website, and follow the links. If you would like to present at the Building Operators Association, please text or call me.

Smiles))

With kind regards,

Les Anderson PE, RPA



JOIN US!

FOR OUR VIRTUAL BOA MONTHLY

MEETING ON TUESDAY MARCH 8 2022

AT 5PM

March 2022



Clean Air Matters

We spend about 90% of our time indoors, and it has never been more important to ensure we have clean, healthy indoor environments. For over 50 years, BGE's approach has focused on people, as we strive to provide optimal air quality through proactive, integrative advisory services and quality products you can trust.

BGECleanAir.com

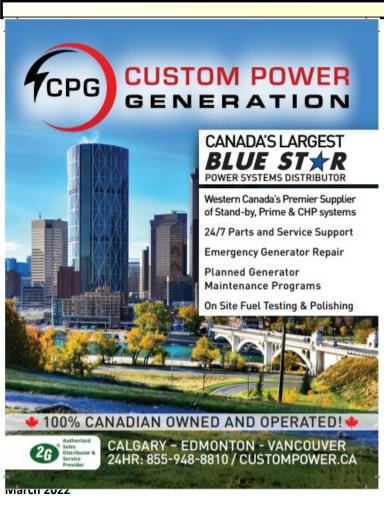
Edmonton Calgary Vancouver Fort McMurray Prince George Regina Saskatoon Winnipeg



Manufacturer's Representatives for:

- Xylem / Bell & Gossett
- · Watts Water Technologies / Watts Radiant
- Watts / Powers Mixing & Electronics
- · Tekmar Control Systems
- · American Standard Brands
- Clemmer Technologies
- Laars Boilers
- De Dietrich Boilers
- · Gastite Flexible Gas Piping
- Sisco P/T Plugs
- WGI Western Gauge & Instrument
- · Griswold Flow Control Valves
- · Metraflex Pipe Connectors
- Rinnai

Alan Proctor Shawn Oakley Greg Smith #7, 6130 – 4 Street S.E., Calgary, AB. T2H 2B6 Tel: (403) 253-6808 Fax: (403) 259-8331 www.dcsalesltd.com





Phone: 403.254.6922 Email: sure20@surecopy.com www.sureprintavenida.ca

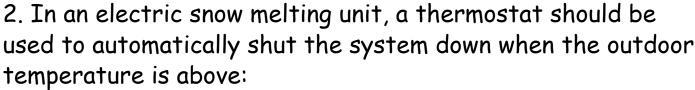
Test

TEST YOUR OPERATOR IQ!

Are you equally adept at troubleshooting problems in the boardroom and the boiler room? As the resident facility guru, there's a lot riding on whether or not you know the difference between sounds control and a sound investment.

Try our monthly Operator IQ challenge...answers on page 18

- 1. Gas-fired infrared heaters use the principle of:
- a. heating a gas
- b. heating a solid surface
- c. C. heating a liquid
- d. heating a porous material
- e. all of the above



- a. 0°C
- b. 1°C
- c. 2°C
- d. 3°C
- e. 4°C
- 3. In an internally fired, gas fired infrared heater, the surface temperature is about:
- a. 300°C
- b. 400°C
- c. 500°C
- d. 600°C
- e. 700°C
- 4. In an open wire type heating element the resistance wire is made of:
- a. tungsten
- b. magnesium oxide
- c. mica
- d. steel
- e. nickel-chromium

5. Infrared heaters are usually mounted:

- a. overhead
- b. on walls
- c. in floors
- d. under windows
- e over doors

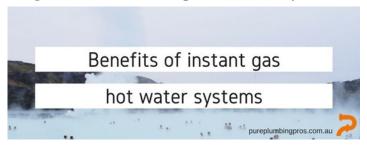




What are the benefits of instant gas hot water systems?

Gas instant hot water systems have many benefits for your home and your budget.

We've put together a list of the many advantages of choosing to install an instant hot water system for your new home or upgrading from your old gas or electric storage hot water system to



an instant option.

Benefits of instant gas hot water

No wasted power

No wasted energy keeping water hot in a big storage tank when you're not using it. This means cheaper operating costs.

Heats only when you need it

The HW unit only heats as you need the water. Away on holidays or just at work? No wasted power maintaining hot water when you're not home.

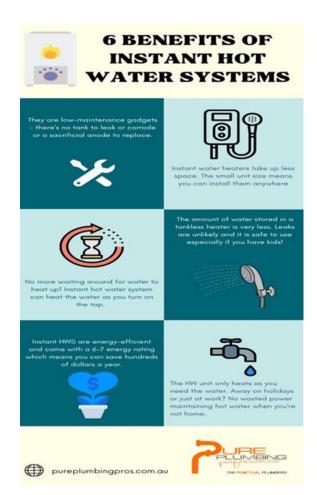
Flexible installation options

The small unit size means you can install them almost anywhere, no bulky tanks taking up

room in the yard. Most brands provide indoor and outdoor models to cater for all style properties.

Reduced water wastage

Locating the heater close to high water use areas such as the kitchen, bathroom or



laundry, means less water wasted waiting for the hot water to reach the tap.

Continued on page 8...

March 2022

Continuous hot water



The system keeps on heating for as long as you need it - no running out halfway through a shower. And no waiting for the storage tank to heat up again.

Long lasting water heater

Instant style water heaters will usually last almost twice as long as a tank/storage unit, with a 20 year life expectancy rather than around 10 years for a storage heater.

Power options

With a range of Natural gas and LPG models available across most of the leading brands, you'll find a water heater to suit the available fuel in your area. Some brands also offer electric instant hot water systems for homes and businesses where gas is not an option.

Some models don't require electricity to operate (for pilot light ignition), making them ideal for difficult or remote installations.

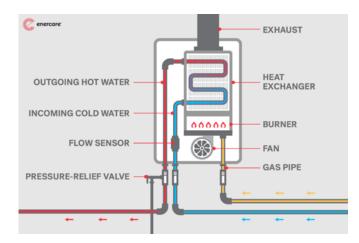
Lower heating requirements

As the instant system only needs to heat water to the desired delivery temperature (often 50°C) rather than maintaining the water at or above 60°C which is needed to

prevent the growth of dangerous Legionella bacteria in a storage tank.

Energy efficient

The energy efficient operation of instant hot water systems means they're better for the environment. Some models boasting 7 Star energy ratings provide maximum efficiency.



Using an instant hot water heater in conjunction with, or as a booster for, a solar hot water system for the greatest energy efficiency.

Easy operation

System controllers can be placed at each point of use throughout the house for precise temperature control and safety.

Reduced maintenance requirements

Instant water heaters have reduced maintenance requirements compared with storage hot water, there is no tank to leak or corrode, sacrificial anode to replace.

Article reprinted with permission



Study Notes! Consequences of Untreated Water in Building Systems

James R. Stringer

(Reference: Power Engineering Third Class Edition 2.4; Part B1; Chapter 10: Internal Water Treatment for Boilers)

Water treatment is a critical component of building systems; be it for steam boilers, cooling towers, condensers, or closed loop systems. We first need to know what we are protecting against.

Scale is a hard layer of mineral deposit that forms on the boiler waterside. Scale forms usually in the hottest parts of the boiler, generally steam generating sections of steam boilers such as the risers and waterwall sections of watertube boilers.



Scale build up over time inside of a humidification unit

The primary cause of boiler scale are **undesirable minerals** in the water such as **calcium and magnesium** as they exist in large quantities compared to other minerals. They deposit readily in water. Other deposits to watch out for are iron, copper, aluminum, and silica.

- 1) scale restricts heat transfer and causes metal to overheat.
- 2) scale traps water beneath it and encourages corrosion.
- 3) scale sloughs off and causes flow restrictions.

Sludge is a harmful product of suspended solid particles that are able to settle in a system. Sludge will accumulate on tube and boiler walls, increasing in size over time. This will affect the performance and efficiency of the system.



New micron filter on the right side changed after 1 week when the heating season began

Corrosion occurs when there is a chemical reaction caused by impurities in the water that cause loss of metal (iron).

Corrosion weakens/thins metal and re-deposits iron into hotter areas that restrict heat transfer. The areas of concern are inside the boiler and the condensate system where scale can be deposited into the boiler. Boiler water is corrosive when it is outside the **pH 8.5-12.7**.



Inside of a steam boiler blowdown tank after decades of use

Corrosion also results in iron redepositing on the metal surfaces closer to the hotter areas of a boiler that can restrict heat transfer and cause overheating of the metal.

Natural corrosion can occur on freshly cleaned or exposed metal that produces a very thin layer of magnetite. This **magnetite layer** helps protect against further corrosion: once the magnetite layer is thick enough, the water can no longer react with

the base metal. However, the magnetite layer is still susceptible to corrosion from other causes.



Inside of a steam boiler used for humidification. The brown colouring is a natural magnetite layer

Acidic corrosion occurs when the pH is below 8.5 and it accelerates the lower the pH. Acidic water will first eliminate the magnetite layer, then cause general metal thinning and it can target areas of high stress.

Caustic corrosion occurs when the pH is above 12.7. Caustic corrosion causes localized gouges in the metal that appear deep and irregular.



Boiler water that was tested to be acidic – pH of 5.7

Caustic embrittlement occurs when there is a leak and build-up of caustic and the crystalline structure of the metal changes, making the metal brittle. The metal must be under high amounts of stress. When the metal becomes brittle, it is weakened and can not withstand the pressure, leading to a sudden rupture or cracking.



Corroded steam trap; the deaerator for this steam system needed to be replaced so the gases in the water could be removed

Oxygen corrosion occurs when oxygen, generally introduced through feed water but can happen through leakage, is heated, and becomes very acidic. It begins with small pits but can deepen in a localized or wide area. This pitting can progress rapidly and can cause metal failure expeditiously.

Carbon dioxide corrosion happens when CO₂ reacts with steam condensate causing carbonic acid to be formed. Carbonic acid will then target the metal in a general pattern causing grooves in the metal.

Bonus Picture!



I do not know if this is a pump seal leak, if this is a lack of water treatment or too much treatment, and why this hasn't been cleaned and replaced. What I do know is I'm calling the Men in Black if this continues to grow!

Epic Building Services Ltd is a facility management and operations company based in Calgary, Alberta, Canada. Epic is a family operated business with a team of Power Engineers that provide various services for all our client's needs.

Article reprinted with permission





Healthy Buildings on a Sustainable Planet GOSONIC Instruments A Member of the Gasonic Group Bay 8, 823 - 41 Avenue N.E. Calgary, Alberta T2E 6Y3 Phone: (403) 276-2201 Website: www.gasonic.com

CONSULTING • DESIGN • INSPECTION • TESTING SERVICES

Anton J. Vlooswyk, P.Eng.

Cel: (403) 651-1514 Tel: (403) 287-0888 Fax: (403) 287-0880 Email: anton@beei.ca

102, 4029- 8th Street S.E. Calgary, Alberta, T2G 3A5 www.beei.ca



WestExcel

Commercial Building Automation Solutions Provider Over 30 product lines including







Shawn Mclean, Calgary 403-404-3660 www.westexcel.ca

Kenken Puzzle

How to solve the Kenken puzzle:

(Answers on page 18)

- Fill in the numbers from 1-6
- Do not repeat the number in any row or column
- The numbers in each heavily outlined set of squares, called cages, must combine (in any order) to produce the target number in the top corner using the mathematical operation indicated
- Cages with just one square should be filled in with the target number in the top corner
- A number can be repeated within a cage as long as it in the same or column

2÷		4-		2÷	
3	20×	2-	60×		
			15+	2	
20+		3+			
			8+		
1-		7+		30×	



Ideas on how to prevent pipes from freezing

Frozen pipes could be a big problem and can be prevented.



In addition to conducting regular winter home maintenance, protecting pipes from freezing is important. Even a tiny crack in a pipe can spew hundreds of gallons of water causing flooding, damage to your furnace and serious structural damage. It also presents an immediate potential for mold.

Frozen water pipes are a problem in both cold and warmer climates, affecting families each winter. It can occur in homes with both plastic and copper pipes. By taking the preventative measures below, you may help reduce the risk of frozen water pipes and the resulting property damage.

Tips to help prevent pipes from freezing

The three central causes of frozen pipes are quick drops in temperature, poor insulation and thermostats set too low. You can prepare your home during the warmer months

Insulate pipes. Pipe insulation in your home's crawl spaces and attic helps even if you live in a climate where freezing is uncommon. Exposed pipes are most susceptible to

freezing. Remember, the more insulation you use, the better protected your pipes will be.

Use heat tape or heat cables. Heat tape or thermostatically controlled heat cables can be used to wrap pipes. Be sure to use products approved by an independent testing organization, such as Underwriters Laboratories Inc., and only for the use intended (exterior or interior). Closely follow all manufacturer's installation and operation instructions.



Seal leaks. Locate and thoroughly seal leaks that allow cold air inside. Look for air leaks around electrical wiring, dryer vents and pipes, and use caulk or insulation to keep the cold out.

Secure outdoor hoses, valves and faucets. Before winter hits, disconnect garden hoses and, if possible, use an indoor valve to shut off and drain water from pipes leading to outside faucets. This reduces the chance of freezing in the short span of pipe just inside the house.

Let water drip. A trickle of hot and cold water might be all it takes to keep your pipes from freezing. Let warm water drip overnight when temperatures are cold, preferably from a

faucet on an outside wall.

Adjust the thermostat. Keeping your thermostat set at the same temperature during both day and night also reduces the risk of frozen pipes. During extreme cold, this also helps reduce the strain on the furnace.

Open cabinet doors. This allows heat to get to un-insulated pipes under sinks and appliances near exterior walls.

Ways to help avoid frozen pipes while on vacation

Always be sure to winterize your home thoroughly. Before you leave, take measures to protect your home so you can enjoy the time away, rather than worry about pipes and security. A few things to remember include:



Check the thermostat. Set the thermostat in your house no lower than 55 degrees Fahrenheit (12 degrees Celsius). Also be sure to replace the battery in your thermostat.

Ask for help. Ask a friend or neighbor to check your house daily to make sure it's warm enough to prevent freezing.

Shut off the water. Shut off and drain the water system. Be aware that if you have

a fire protection sprinkler system in your house, it may be deactivated when you shut off the water.

What to do if pipes freeze

Pipes do not always burst when frozen. There are a few things to keep in mind:

Call a plumber if needed. If you turn on your faucets and nothing comes out, leave the faucets turned on and call a plumber.

Avoid use of appliances near water. Do not use electrical appliances in areas of standing water. You could be electrocuted.

Avoid applying flames to thaw pipes. Never try to thaw a pipe with a torch or other open flame because it could cause a fire hazard. Water damage is preferable to burning down your house!

Use a hair dryer as a possible heat source (with caution). You may be able to thaw a frozen pipe using a hair dryer — again, make sure you are not in standing water. Start by warming the pipe as close to the faucet as possible, working toward the coldest section of pipe.

Shut off the water supply. If your water pipes have already burst, turn off the water at the main shutoff valve in the house. Make sure everyone in your family knows where the water shutoff valve is and how to open and close it. Be sure to leave the water faucets turned on.



Frozen pipes can be prevented by taking the right steps. Discover ways to reduce

your energy. use during cold winter months.

Article reprinted with permission

Convoy Protests in Canada and Building Safety & Security

Jason Reid

Senior Advisor; Fire & Emergency Management; High-Rise, Commercial, Mission Critical, Residential & Mass Assembly.



The Ontario government recently declared a state of emergency in response to convoy protests and their impact on the movement of goods, people, and services.

While the hope is that the disruption will ease due to the threat of fines for non-compliances with a maximum penalty of \$100,000, and up to a year imprisonment, it's also time to ensure that our communities of buildings consider their current security and emergency preparedness status.

Building managers and owners have been prepared for a long time to respond to emergencies, operational interruptions, and more, but what if you manage a building in a protest area?

The Ottawa "freedom convoy" trucker protest has seen over 126 criminal investigations, and hundreds of property complaints. It is believed that additional protest zones will pop up across Canada. In fact, there are indications from protest groups on social media that they are planning to expand areas of demonstrations.

Leadership throughout the property management industry across Canada is strong, significant praise should be given to the front-line professional building managers and their teams. They are working to ensure the safety of our "vertical" communities, and now find themselves in a potentially hazardous protest zone.

Most buildings in Canada have developed and implemented an emergency management plan to

protect employees and occupants against common emergencies in both commercial and residential buildings.

Identifying how staff will respond to various types of emergencies, will assist property and facility managers alike, and their employees, during every phase of an emergency. How to respond, but more importantly, prevent, prepare for them, and possibly eliminate, or mitigate the impacts of those emergencies.

Events, such as planned demonstrations, public disorder, property damage including building fires, and more that occur outside of the building can have serious impact on both occupant safety and building operations. While this is not an exhaustive list, this article will attempt to explain the considerations and actions to take if you manage a residential or commercial building in relation to an area that is under protest.

"Defend in Place" and "Evacuation" Procedures.

Ensure that building occupants and security staff are aware of their procedures in the event of an evacuation, or a "defend / shelter in place."

Sometimes it's safer to be inside of a building, rather than outside. A defend in place is typically communicated by municipal authorities and/or building management due to inclement weather conditions, hazardous material, incidents near a building, demonstrations, and protests.



Your emergency response plan should address who at your building can authorize the "Defend In Place"? Who and how will they communicate this to staff, how will staff communicate this to occupants? What will we say? Ensure building staff are knowledgeable about the operation of the building emergency voice communication system connected to the fire alarm panel. This system allows for mass communication to the building and is but one medium for occupant communications. In addition, Occupants need to understand what to do when they are to "Defend In Place". This takes considerable preparation as building occupants must know what to do - when an announcement is made.

How and when you communicate will also largely depend on whether you are protecting a commercial or residential property. Informing residents about upcoming/planned events, disruptions to local businesses, road closures, transit, etc. may provide residents an opportunity to leave for the duration of the event, if they have the availability to do so. If they manage a commercial property, Management teams should be engaged in regular communication with all stakeholders in their building. Employers and landlords have an obligation to ensure the safety of their employees, and their tenants will no doubt have to consider events occurring outside of their building, to ensure that their employees are safe; working remotely, temporarily relocating operations, etc.

Building Staff and Personal Safety

Ensure security, operations, and cleaning staff have been briefed on "personal" safety at the building, and to and from work.

Where are staff going to park? Consider advising security staff not to wear their uniforms on the way to work so that they are not easily identified or targeted based on their attire.

All staff should be reminded that tensions are high, and the objective in any dealings with individuals on, or in relation, to the property should be focused on safety, de-escalation, professionalism coupled with patience. Document this discussion with staff, as it addresses what was completed to protect employees

in compliance with OHSA.

Consider cancelling hazardous material deliveries

At times of heightened risk at a building, cancel any deliveries of fuel and hazardous materials.

Refueling generator fuel tanks would be not appropriate, as this would cause the arrival of trucks containing large amounts of fuel that would sit adjacent to your building.

Building Crime Prevention

Consider reducing the number of building access points to one single point of entry. This allows for the effective use of available security resources and to better protect the building and occupants.

The exterior lighting around a building is designed to keep the property safe, deter crime and unwanted behavior. Security and building operations staff should be documenting daily inspections of the building's exterior lighting to ensure all are functioning in an effort to maximize this protection. Document this important step on behalf of the building's risk management program. If it is not documented, there is no proof of the hard work completed to protect staff and occupants.

Building Air Intake Protection

All building bring in fresh air through the "intake vents." These intake locations should be identified at a building and protected. In some buildings, idling large diesel trucks close to these intake vents can cause hazardous/ unwanted airborne products to enter a building.

Consider training building security and operations staff on how to safely isolate the building air intakes in the event of an "airborne" hazard on the exterior of the building. This can be done relatively quickly and safely via the building's "automation system," or manually at each rooftop unit or from the electrical disconnect.

This tactic has been successfully used to protect building occupants during both neighbouring building fires, protests (tear gas), and more, as a means of keeping the hazard outside of the building

and everyone inside safe.

Broken Windows and Being Prepared

While it's never going to happen right? Building owners and managers may want to consider having one or two sheets of plywood stored at the building to rapidly secure broken windows, restore and protect the building perimeter.

Consider walking through "how" building operations staff would effectively secure the plywood, to do as little damage to the frame as possible, and have the tools and equipment needed to complete this. If you have time, this is a great exercise to do with your door service provider.

Review Security Procedures with all building staff

The operations, security and cleaning staff are a vital part of a building's security program.

Emphasize that their eyes, ears and experience play a major role in identifying potential risks to the building during their daily movements throughout it.

Encourage staff to report anything that appears unsafe or suspicious. Review with all staff the building's emergency "lock down" procedure for perimeter access points and elevators.



CCTV and Access Control Systems

A critical tool available at most buildings are the CCTV and access control systems.

It is recommended that building managers verify that these systems are both operational and that there are no impairments. Consider auditing the building's service rooms containing critical infrastructure to ensure that they are locked and secured.

It's an excellent time to complete an audit of the access control fobs / keys. Document this step as evidence of a manager's proactive measure during times of heightened security risks.



Physical Security Staffing

As demonstrations and protests typically impact more than one building, there may be a drain on physical security providers during prolonged incidents.

Building managers should engage their security service providers to discuss potential staffing requirements and determine how fast they can be deployed along with any training needs that are required.

Building Perimeter Safety

Consider removing or securing exterior garbage cans, benches and "sandwich board signs" that may be damaged or used inappropriately. Implement multiple building perimeter and above grade parking lot inspections daily. This should be assigned to someone and documented.

Staff should be identifying and reporting any potential hazards identified such as vehicles parked next to the building, suspicious activity, evidence of past activity, hazards such as propane cylinders, gas cans, and loose items that could be used as projectiles or weapons.

Occupant Communications

Keep them informed. Whether you manage a commercial, residential building or critical infrastructure facility, the occupants must be communicated to.

The communications to building occupants should be often, and focus on the following:

- Owner / management is monitoring the situation and is aware of the potential impacts
- Management has taken precautionary safety and security measures and have activated their Emergency Response Plan.
- List of potential impacts, street closures, etc.
- Communication of emergency procedures and emergency contact information for the building and police, fire and EMS.
- How occupants can help. Reporting suspicious activity, personal safety when accessing the building, keeping windows closed, reporting noise complaints, etc.

Article reprinted with permission

Line of Fire

Keep yourself and others out of the line of fire



- I position myself to avoid:
 - moving objects
 - vehicles
 - pressure releases
 - dropped objects
- I establish and obey barriers and exclusion zones
- I take action to secure loose objects and report potential dropped objects

USING THE CORRECT FIRE EXTINGUISHER



equipment







Do not use in a confined

5th Class Power Engineering Course



The Online BOMA 5th Class Power Engineering Course:

- Will begin in Feb (exact date TBA) and will take place every Tuesday and Thursday evenings from 5-8pm.
- The course will be held online only using Zoom.
- The fee for enrollment will cover the cost of the 150 hour course, textbooks, and BOMA certificate upon completion
 please note this does not include the ABSA exam
- The total cost including GST is \$2,199.75
- *No prerequisites are required for the course*

New to the industry? If you are looking to become a building operator, then we recommend taking the Building Operator Level 3 online course. Visit our website for more info: https://boma.ca/courses-list/building-operator-program/

If you need further information please contact info@boma.ca

Kenken Puzzle Answer

²÷	2	⁴⁻ 5	1	²÷	6
³ 3	20× 4	²- 6	60× 2	5	1
1	5	4	15+ 6	² 2	3
²⁰⁺ 6	3	³+ 1	5	4	2
5	6	2	*+ 3	1	4
¹- 2	1	⁷⁺ 3	4	30× 6	5

TEST YOUR OPERATOR IQ ANSWERS

Answers: 1) b 2) c 3) b 4) e 5) a



BOA Canada Magazine printed & distributed by:

SURE PRINT & COPY

New pipes inside your old pipes.



Cost Effective, Less Disruptive. Simple as that.

Whether you're replacing a drain stack in a skyscraper or a piece of cracked cast under the floor in a shopping centre, we have it handled!

- Vertical drain stacks behind walls
- Horizontal drains under floors
- HVAC and chiller pipes
- Pipes with multiple bends and offsets
- · Pipes with branch connections
- 11/2 10 Inch diameter (custom sizes available)
- Inside any type of pipe (including cast iron, steel, asbestos concrete, PVC, ABS)
- 50+ year life expectancy



Inside Building Specialists
403-903-4445
www.revivepipes.com

February 2022 Meeting Minutes BOA Canada Chaired by: Minutes by: Call to order: Webinar: Feb 8, 2022 Mark Arton Monika Bhandari 5:01pm

New Business:

- Digital magazine is now out for Feruary 2022
- Tradeshow possibly in fall 2022
- Join the BOA; details on www.boacalgary.com
- Past webinars available on the website and the building operators Calgary YouTube channel
- New guest speakers wanted for webinars; contact Les or Mark if interested

Guest Speaker:

Tiffany Petrunia, B.Sc. Account Manager, SUEZ Water Technologies

JOIN US: TUESDAY MARCH 8, 2022 AT 5PM FOR OUR VIRTUAL MONTHLY MEETING

Presenter: Rick James, James Electric Motor Services

reminiscing about his experiences over the past forty years in the pump business, and sharing a few tips about the various types of pump systems we find in buildings

Rick James incorporated James Electric Motor Services in September 1974. The business grew slowly, repairing small motors, power tools and the occasional pump. Rick soon came to realize that there was no one servicing the commercial pump repair needs in Calgary and surrounding area. There were shops that specialized in well and sump and sewage pumps, but they did not repair heating and cooling pumps found in every school, office tower, hospital, and all commercial and residential buildings. This became the target market for James Electric. Over the next 44 years the company grew from a one man 500 Sq. Ft. shop to a 65 Person 35,000 service centre, specializing in the sales and service of Pumps, Motors, Fans and Blowers. James Electric grew to become one of the largest Pump Service Centers in Canada, with a reputation of pump expertise that was know all over North America.

numerous heating, cooling, sump and sewage pumps for 5 different North American pump manufacturers. With the assistance of his employees, they were able to invent or redesign many proprietary pump repair parts that are used everyday to improve the operation and design of many commercial pumps. Rick and his team looked for solutions to repair or replace pumps that others walked away from, coming up with unique ways to retrofit, modify or replace pumps and motors that were beyond repair. This was never more evident than the flood of

2013, when James Electric staff worked around the clock to ensure that buildings could open as quickly as possible Title & Brief: Pumps with Rick James. Rick will be when the water subsided. Due to large inventory, pump and motor knowledge and excellent relationships with the majority of North American pump manufacturers they were able to repair or replace every pump and motor that was damaged by the flood in Stampede Park, the five buildings at the old Holy Cross Hospital site and the Repsol Center. The majority of these pumps and motors were repaired or replaced directly from James Electric stock. This is a small sample of the buildings that James Electric worked in after the flood, but they were most proud to play a part in getting Stampede Park up and running for the 2013 Stampede.

> Throughout his career Rick used his pump knowledge to design proprietary software to determine how to setup Variable Speed pumps and calculate the operating parameters of pumps that his staff tested on a day-to-day basis. He also developed a program that he used for the selection of replacement Domestic Cold Water Booster Pumps for many office towers and residential Hi-rise buildings throughout the city.

Rick was responsible for the design or redesign of Rick topics will include stories about various pump problems that he encountered over the years, Variable Speed Pumping pros and cons, Variable Speed Booster Pumps, with a question-and-answer session at the end.

Click on this link to register for the BOA Monthly Meeting





March 2022 20









BOA CALGARY OPERATOR MAGAZINE ADVERTISING RATES:



1/8 page	\$200	Premium Locations:	
1/4 page	\$400	1/2 page inside/outside cover	\$850
1/2 page	\$775	1/2 page outside cover	\$900
Full page	\$1000		

Deadline for ads is the 10th of each month. For any questions, please email: advertising@boacalgary.com.



Thank you to our incredible sponsors! Your support of the Building Operators Association is invaluable!!

GOLD LEVEL SPONSORS

















SILVER LEVEL SPONSORS













BRONZE LEVEL SPONSORS











Life Is On



Advertisers Directory

Automation 403-404-3660

WestExcel Automation Ltd.

Boiler Services

Black & McDonald 403-235-0331 Quality Combustion & Controls 403-936-0065

Cleaning / Janitorial Services

Regency Cleaning 403-520-7788

Drain Services

Revive Pipes 403-903-4445

Engineering Services

Building Envelope Engineering 403-287-0888

Filtration

BGE Air Quality Solutions Ltd. 403-243-5941

Alberta Diesel Dialysis 403-813-9999

Fire Protection Services

Constant Fire Protection 403-279-7973

HVAC & Electrical Services

Black & McDonald 403-235-0331 Boulder Mechanical Contractors 403-230-5519

Ltd.

Indoor Air Quality Services
Gasonic Instrument Inc.
403-276-2201

Black & McDonald 403-235-0331

Lighting Services

Calgary Lighting Products 403-258-2988

Motor Services

James Electric Motor Services 403-252-5477

Supply Services

DC Sales Corporation 403-253-6808

Alberta Certified Power Engineers
Online Directory

Check to see when your power engineer certificate is due for renewal!

www.absa.ca/directories/alberta-certified-power-engineers-directory/



Support those that support

YOU!

Next time you are looking for a product or a service provider, please consider connecting with one of our advertisers & members of the Building Operators

Association of Calgary

Motor Services Ltd.

Professional Pump & Electric Motor Repair

35,000 Square Foot Service Center and Warehouse In-House Machine Shop & Fabrication Departments Fully Equipped Service Vans Certified Hydronic Designer on Staff Calgary's Largest Replacement Motor Inventory

Largest Stock of Pumps & Pump Parts in Western Canada Custom Built Fans and Blowers to Meet Your Specifications

ISO & COR Certified

Consumer Choice Award 8 Years Running All Service Technicians are Trained in Confined Space Entry Fire Pump, Booster Pump and Sump Pit Annual Inspections Available **Energy Efficient Audits and Solutions** On Call 24 Hours, 7 Days a Week

Motors

A.O. Smith, Baldor, Century, Emerson, Franklin, Fasco, Lafert, Leeson, Marathon, WEG, Teco-Westinghouse, US Motors

Pumps
Armstrong, Albany, Barnes, Bell & Gossett, Burkes, Darling, Franklin, Goulds, Grundfos, Hydromatic, Liberty,
Little Giant, Monarch, Paco, Taco, Tsurumi, Xylem

Fans & Blowers Airdex, AirKing, Broan, Dayton, Delhi, Fantech, Fasco, Greenheck, Lau, Nederman, Nutone, Schaefer, Tjernlund

Variable Frequency Drives & Motor Controls
ABB, Danfoss, Baldor/Reliance, WEG, Santerno, Teco-Westinghouse, Tornatech

Accessories Gear Boxes, Pressure Tanks, Gauges, Bearings, Mechanical Seals, Flow Indicators, Filter Housings, Filters, Flanges, V-Belts, Float Switches, Pressure Switches, Pulleys, Sheaves, Relays, Contactors, Pressure Reducing Valves

Are your pumps leaking money?







23

Booster Audit

March 2022

We have ability to monitor water useage and power consumption to provide the following:

- A comprehensive pre audit booster inspection
- An energy audit with an estimate of annual energy savings and potential payback.
- The "scope of work" for the installing contractor
- Start-up and commissioning on site
- Yearly maintenance inspections
- On site service 24/7/365

Grundfos BoosterpaQ

- Most efficient cascade control, application optimized software in the industry
- Single source responsibility: One manufacturer for pumps, motors, drives and control
- Plug & Play Easy to install and commission
- Large, clear, user friendly & advanced controls interface
- Reduced floor space footprint
- Ethernet & BUS communications option
- Drinking water approvals: NSF61/372, Hygenic designed 316SS manifolds

4020 - 8 Avenue S.E, Calgary, Alberta, T2G 3A7 www.jameselectric.ca motors@jameselectric.ca



Scholarship

5th Class Course

Calgary Lighting Products in partnership with BOA

is offering a 50% Scholarship towards the 5th Class Course

For more details, please contact president@boacalgary.com

CalgaryLightingProducts.com

Need Trained Building Operators?





5th Class Power Engineering 'Building Operator' Training Program



- Our first ever program graduated nineteen 5th Class Power Engineers Building Operators
- 90% secured employment with major companies in town!

If you are a Building Owner/ Manager and would like to:

- know more about this training or
- be a work experience host employer or
- have recruting advantage after completion of training



At no cost to you!

Please contact: Monika Bhandari Phone: 403.514.8328 Email: mbhandarigccisab.ca 1111-11 Ave SW 5th Floor Calgary, Alberta T2R 0G5 www.ogtp.ca

Black&McDonald

Services

Heating, Ventilation & Air
Conditioning
Sheet Metal
Electrical
Building Automation Systems
Plumbing
Refrigeration
Voice & Data Communications
Instrumentation
High Voltage
Process Piping
Millwright & Rigging

Calgary Office 1071 26 St NE Calgary 403-235-0331

Capabilities

Design/Build
Renovation & Upgrade
Fast-track Change-out
Building Commissioning
Infrared Thermography
Facilities Management & Operation
Planned Preventive Maintenance
Sheet Metal Fabrication Pipe
Complete Boiler Services
24-hour Emergency Service

Facilities

Commercial/Office Industrial Education & Institutional Healthcare Industrial Telecom & Data Centers Sports & Assembly Airport & Transit Stations Military Bases



Black & McDonald is a leader in quality service, committed to implementing innovative solutions throughout a facility's life cycle.

www.blackandmedonald.com