2015 ISI CONFERENCE & TRADE SHOW HEADS TO BOSTON’S NORTH SHORE

Frozen Dome Classic: AHL RINK BUILT IN 3 DAYS

PREVENTING INJURY in the Young Skater

The Future of CREDIT CARD SECURITY

R-22 PHASEOUT Case Study
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I

T’s difficult to imagine the ice skating industry and ISI without the contributions of Morris (“Murray”) Sandler, the dapper dresser with the ever-present cigar and dry sense of humor who served on the ISI board of directors for more than 30 years, including eight as president. Sandler died on Nov. 18 at the age of 91 after a 23-year battle with cancer, but his legacy lives on.

Born in Boston in 1923, he served in the U.S. Army under Gen. George S. Patton from 1943 to 1946, then returned as a decorated veteran to Boston University and worked in a men’s clothing store. He and his wife, Lois, were married in 1957, around the time her family was starting a sporting goods distribution company. He signed on, and then, in 1977, they decided to strike out on their own.

From the beginning, service was the hallmark of Murray Sandler Skate & Rink Supply. Besides delivering top-quality products and service on time, with a smile, Sandler also became known for the brands he developed, including the Celebrity skate series. The company eventually expanded to serve the international market and grew to $4.2 million in sales before Sandler retired.

He was only the second builder/supplier elected ISI president, and the first individual to serve four terms, and he's one of only a handful of ISI Lifetime Achievement Award honorees.

Sandler chaired the conference and trade show committee and was involved in site selection for the annual event for years. During his tenure as president, from 1985 to 1993, the ISIA Education Foundation was established, the judges’ certification program was introduced and the seeds were planted for what later would grow into the iAIM program.

Sandler is survived by his wife of 57 years; daughter, Donna Koocher; sister, Bernice Levine; brother-in-law, Rick Lubin; nieces and nephews; and many dear friends.

Following are a few of the memories shared by some of his ISI friends:

“Murray was instrumental in bringing the ISI philosophy to so many Northeast managers who were under the misconception that ISI was ‘only a skating program.’ He took great pride and satisfaction in seeing his vision of ISI owning its own office headquarters come to reality. Despite his passing from this world, he lives on in each of us whom he made better with his knowledge, wit, business acumen and friendship. We will all continue to dedicate ourselves to achieving the vision he had for ISI.”

Rob McBride, CAE
President, FMC Ice Sports and ISI

“I met Murray over 30 years ago when I attended my first ISIA Conference & Trade Show. He was welcoming, warm and generous with his time and kindness. It wasn’t long after meeting Murray that I realized he had a vision for the growth and promotion of the ice skating industry and that he would provide strong leadership. His unselfish commitment, passion and dedication to the industry have laid a strong foundation for us all to follow. His leadership and direction will be missed by many, but his friendship, love and support will be missed by all.”

Dan Riegelman, Riedell Skates

“Murray was a kind and giving friend. When I was a novice board member, he offered sound advice and direction. I remember how he loved Vegas and a good cigar. He was a mentor with his forward-thinking ideas and respect for others. The world will be a sadder place without him.”

Patti Feeley, Former ISI Director of Member Programs & Services

“Remembering Murray with his cigar, shorts and socks sitting by the pool brings a smile to my face.”

Janice Forbes, ISI 1st Vice President
Program Director, Sprinkler Recreation Center

“I first met Murray in 1972 at my first ISIA Conference and Trade Show. For the next 40-plus years, he was a business colleague, trusted mentor and dear friend. Murray, may the gate to Heaven have a freshly sharpened pair of rental skates in just your size. May you find the ice beneath your feet — and in your glass — frozen to your liking, and nothing but the best cigars!”

Peter Martell, ISI Executive Director
With today’s concern for the environment, energy efficiency and safety, CO2 is now a much superior option over all synthetic refrigerants. It is natural, non-toxic, non-flammable with no net greenhouse effect.

The CIMCO Advantage

CIMCO’s exclusive, patented technology, ECO2 CHILL Thermal Plant, provides you with the finest, most energy efficient CO2 ice rink system available. Major operational benefits include:

• abundant high-grade heat reclaim (above 140°F and suitable for boiler replacement)
• full low-grade heat reclaim (at 100°F for underfloor heating, potable water and snow melting pit)
• efficient compressor operation
• very low pumping power (as much as 90% less energy required compared to other systems)
• superior CIMCO ice quality and consistent ice temperatures (CO2 enters and leaves the refrigerated slab at the same temperature)
• and a future-proof answer as a refrigerant

With over 100 years as the leader and most experienced company in ice rink design, engineering, manufacture, installation and service, you can rely on CIMCO to provide you with an affordable, high-performance refrigeration system that is exactly right for you.
Basketball and football were pushed off-stage in November at the massive Carrier Dome on the campus of Syracuse University in Syracuse, N.Y. With an army of students helping, ice rink industry veterans converged on the scene to bring the AHL's Frozen Dome Classic to reality, featuring the Syracuse Crunch and Utica Comets.

The brainchild of Syracuse Crunch owner Howard Dolgon, the event marked the first time in the arena's 34-year history that ice hockey was staged in the building.

Prior to the installation, Crunch COO Jim Sarosy said, “When you look at this event, the two greatest challenges we have are to sell 28,183 tickets (referencing the U.S. professional hockey indoor attendance record) and we have three days to get this up (before the team practices).”

The building staff and the ice crew worked around the clock. A record-setting 30,715 fans were in attendance. The home team won. Mission accomplished.

Ice Rink Events furnished the ice hockey rink facilities, with the same rink to be used for January's Hockey Day Minnesota event in St. Paul, and for the February Hockey City Classic on Chicago's Soldier Field. Don “Scooter” Mosher led the technical installation.

Veteran ice consultant, former ISI President and Syracuse native Jim Hartnett coordinated the logistics with Crunch management and SU’s Pete Sala. “Outside we have to dance with Mother Nature,” Hartnett said. “In here, it's been the time constraint.”

The Ice Rink Events team installed the roll-out mat system in just hours, with dashers up and ice making begun that same day. The entire ice arena, from raw turf to skating, was completed in just three days by the seasoned technicians.

Hartnett characterized the process as a series of steps like a synchronized skating team, such as installing glass at the same time as painting the ice — two steps that aren't typically executed simultaneously but had to be, due to the fast-paced deadline.

Yanni Gourde's game-winning goal and Andrei Vasilevskiy's 26 saves edged the Syracuse Crunch to a 2-1 victory over the Utica Comets. “It was crazy,” said Gourde. “The crowd was so big!”

Mike Clayton is the owner and president of Ice Rink Events, supplier and operator of some of the most challenging ice rink installations worldwide.

Zamboni® remains the overwhelming choice for professional, private and municipal ice rink operators throughout the world.

Efficiency and power without compromise. With both fuel powered and electric options, Zamboni has the machine to meet the tough demands of your facility.

Trusted and proven performers, Zamboni ice resurfacers bring unequalled quality and superior value to the rink every day.

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www.zamboni.com

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The Ice Rink Events team: (L to R) Donna Mosher, Charles Mosher, Don “Scooter” Mosher, Mike Clayton and Rick Mosher. Also on the team were Doug Estelle, Tony Cuchiarale and Al Korrigan.

Just after a Saturday night basketball game, Carrier Dome Managing Director Pete Sala leads student workers as they install the plywood subfloor covering the football turf.

The 28 miles of ½” diameter cooling tubes are rolled out, each with integral 6” PVC headers with snap-together clamps. Not a single hand tool is needed in the eight-hour assembly of the entire ice rink floor.

Project Manager Jim Hartnett and Ice Rink Events’ Scooter Mosher oversee the first resurfacer drive over the freshly painted and lined rink.

Syracuse Crunch COO Jim Sarosy (right) and Jim Hartnett meet to review the final installation prior to game-day.

The hockey set-up squeezes into the Carrier Dome’s basketball configuration. The AHL Syracuse Crunch get a chance to practice on the new ice arena, created on a blank football field in just three days.

The Syracuse Crunch and Utica Comets line up for the national anthem.

A new attendance record for an indoor professional hockey game in the United States is set as 30,715 fill the massive Carrier Dome.

The 200’x85’ hockey rink takes shape, with glass going up and player-penalty boxes installed.

The hockey set-up squeezes into the Carrier Dome’s basketball configuration. The AHL Syracuse Crunch get a chance to practice on the new ice arena, created on a blank football field in just three days.

Once the game is over, an army of Syracuse University students moves in to hammer out and cart away the ice sheet. The dashers are dismounted and the cooling mats rolled up.

The university’s football field begins to reveal itself once again as the rink and subfloor are removed. The entire removal process is complete in a record-setting 17 hours.
Keeping your ISI administrative membership current is extremely important and beneficial. Your membership allows you to utilize the weSKATE Class Management software, keep your skaters’ memberships and tests up to date—and earn ISI Rewards Bucks at the same time. Ongoing membership also allows you to keep pace with all that is happening at ISI and in the ice arena industry, and offers you access to the ISI educational benefits designed to help you grow and run the best possible programs for your facility and customers.

<table>
<thead>
<tr>
<th>New &amp; Renewing Builder/Supplier Members</th>
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</thead>
<tbody>
<tr>
<td><strong>ISI Builder/Supplier Members</strong></td>
</tr>
<tr>
<td>ISI builder/supplier members receive discounted exhibit space at the annual trade show and national skating competitions, special rates on print/electronic advertising, free employment advertising, ISI directory listing, business referrals, networking opportunities and much more.</td>
</tr>
</tbody>
</table>

Aerodrome Ice Skating Complex-Willowbrook Houston TX

Airport Ice Arena Moon Township PA

All Seasons Arena MN Mankato MN

Allen Community Ice Arena Allen TX

Andrew Stergiopoulos Ice Arena Great Neck NY

Annaapolis Skating Academy Annapolis MD

A'nowara'ko:wa Ice Academy Arcadia Ice Arena Phoenix AZ

Beaver Dam Winter Sports Club Locust Valley NY

BladeRunners Ice Complex Pittsburgh Pittsburgh PA

Bloomington Ice Garden Bloomington MN

Bremerton Ice Center LLC Bremerton WA

Brookings Figure Skating Club Brookings SD

Burbank Ice Arena/Reading Ice Arena Authority Inc. Reading MA

Burich Arena Hutchinson MN

Centennial Ice Rinks-Wilmette Park District Wilmette IL

Centennial Sportsplex Nashville TN

Champaign Figure Skating Club Saint Joseph IL

Charles Moore Arena Inc. Orleans MA

Chiller LLC-Easton Columbus OH

Chiller North-Lewis Center Lewis Center OH

City of Birmingham Ice Sports Arena Birmingham MI

City of Rock Springs Figure Rec Center Ice Arena Rock Springs WY

City of White Plains Recreation and Parks White Plains NY

Clary Anderson Arena Montclair NJ

Cottage Grove Ice Arena Cottage Grove MN

Crown Center Ice Terrace Kansas City MO

Dr Pepper StarCenter Farmers Branch Farmers Branch TX

Edge Ice Arena/Edge Ice Academy Bensenville IL

Elite Skating Academy Middleboro MA

Englewood Field Club Englewood NJ

Fenton W. Chester Arena-Lyndon Area Sports Assoc. Lyndon Center VT

Finger Lakes Skating Academy Inc. Canandaigua NY

Floyd Hall Arena Little Falls NJ

FMC Aleixo Arena Taunton MA

FMC Armstrong Arena Plymouth MA

FMC Asiala Arena Brockton MA

FMC Buffone Arena Worcester MA

FMC Burlington Ice Palace Burlington MA

FMC Chelmsford Forum N. Billerica MA

FMC Collins-Maylan Arena Greenfield MA

FMC Connery Rink Lynn MA

FMC Cronin Skating Rink Revere MA

FMC Driscoll Arena Fall River MA

FMC Fitzpatrick Arena Holyoke MA

FMC Gardner Veterans Arena Gardner MA

FMC Heatland Arena New Bedford MA

FMC Horgan Arena Auburn MA

FMC Jim Roche Community Arena West Roxbury MA

FMC Navin Arena Marlboro MA

FMC Pirelli Veterans Skating Arena Franklin MA

FMC Porrazzo Rink East Boston MA

FMC Raynhams Iceplex Raynham MA

FMC Simoni Ice Rink Cambridge MA

FMC Smead Arena Springfield MA

FMC Wallace Civic Center Fitchburg MA

FMC William Chase Arena Natick MA

Ford Ice Center Antioch TN

Franklin Park Ice Arena Franklin Park IL

Freepoint Skating Academy Freeport NY

Galleria Ice Skating Center Dallas TX

Gillette Figure Skating Club Gillette WY

Hackers Hockey Club Bridgehampton NY

Hobomock Sports Center Inc. Pembroke MA

Ice Chalet-Knoxville Knoxville TN

Ice Connection of Pittsburgh Valencia PA

Ice Palace Hawaii Honolulu HI

Ice Time Sports Complex Newbury MA

IceTowrs Riverside Riverside CA

Kansas Expocentre Topeka KS

Kroc Center Ice Arena San Diego CA

LakeLand Ice Arena Waterford MI

Lou & Gib Reese Ice Arena Newark OH

McFetridge Sports Center Chicago IL

Midwest Training & Ice Center Dyer IN

Minnepolis/Augusburg Arena FSC of Minneaplis White Bear Lake MN

Nashoba Valley Olympica Inc. Boxborough MA

Nazarath Ice Oasis Redwood City CA

New England Sports Center Marlboro MA

New Ulm Figure Skating Club New Ulm MN

North East Sportsplex Society Calgary AB

North Park Ice Rink-Allegheny County Dept. of Parks Allison Park PA

Ontario Ice Skating Center Ontario CA

Owens Recreation Center-Peoria Park District Peoria IL

Peak Edwge Performance Lake Placid NY

Pegula Ice Arena (Penn State) University Park PA

Pekin Memorial Arena Pekin IL

Pendleton Ice Rink Pendleton OR

Pickwick Ice Gardens Burbank CA

Pilgrim Skating Arena Inc. Hingham MA

Portland Ice Arena Portland ME

ProSkate Monmouth Junction NJ

RDV Sportsplex Ice Den Orlando FL

Rolling Meadows Park District Sports Complex Rolling Meadows IL

Saddle & Cycle Club Chicago IL

Shapert-St. Mary’s School Acton MA

Shattuck-St. Mary’s School Faribault MN

Skeatontown Ice Arena Roseville CA

Skeatontown Ice Arena Denver CO

Skating Club of Greater Youngstown Canfield OH

Sky Rink®/Chelsie Piers LP New York NY

Southgate Civic Arena Southgate MI

St. Mary’s Point Youth Center St. Paul MN

The CUBE-Findlay Recreation Findlay OH

The Rinks-Lakeview Ice Lacrosse CA

The Rinks-Lakeview Ice Lacrosse CA

The Rinks-Williamson ICE Westminister CA

Vacaville Ice Sports Vacaville CA

Wakota Civic Arena South St. Paul MN

Watts Ice Center-Glencoe Park District Glencoe IL

Wayne C. Kennedy Rec Complex-St. Louis County Parks St Louis MO

Wayne Figure Skating Club New Boston MI

White Bear Lake Sports Center White Bear Lake MN

White Township Recreation Complex/SKT Bank Arena Indiana PA

William G. Mennen Sports Arena Morristown NJ

Winter Lodge Polo Alto CA

Winterland Skating School-Rockland Ice Rink Hingham MA

Yonkers Figure Skating Club Yonkers NY

York City Ice Arena York PA

PSA (Professional Skaters Assoc.) Rochester MN

For membership information, contact Jane Schaber at jane@skateisi.org or (972) 735-8800.
When it comes to outfitting skaters, is it one size fits all?? Of course not! The wrong fit will make even the easiest moves difficult. In fact, it could be dangerous.

So it is with rink management and insurance. Are you covered sufficiently? At the best price and service level? Does your insurance plan fit your business model? If not, you could be headed for a fall.

Our I.C.E. (Ice Center Evaluation) Program is designed specifically with the rink owner in mind. Call us to get a free evaluation and benefit from our 100+ years of combined insurance experience.

Let us help you get the right insurance fit. Then you can focus on your business.

American Insurance
The Right Fit
617-770-9000

Rink Insurance Program underwritten by an A+ Insurance Company
Ice Rinks and the Phaseout of HCFC-22
What You Need to Know

What Is the HCFC Phaseout?
Under the U.S. Clean Air Act and the Montreal Protocol on Substances that Deplete the Ozone Layer, the United States is phasing out the production and import of hydrochlorofluorocarbons (HCFCs) in order to protect the stratospheric ozone layer. By phasing out the production of ozone-depleting substances (ODS) like HCFCs, we are reducing the risk of skin cancer caused by exposure to UV radiation. In addition, many of these ozone-depleting substances, as well as their substitutes, are greenhouse gases that contribute to climate change.

No Immediate Change Is Required
HCFC-22 is used as a refrigerant in many applications, including ice rinks. Starting on January 1, 2020, U.S. production and import of HCFC-22 will end. This does not mean that use of HCFC-22 must stop at that time. Since a significant inventory of virgin HCFC-22 exists, and recovered and reclaimed material will be available, the U.S. Environmental Protection Agency (EPA) expects use of HCFC-22 to continue well into the future.

Planning for the Future Is Important
Even though there is no immediate need for change, supply of HCFC-22 will decline over the next few years, and prices may rise. For existing HCFC-22 systems, this makes tightening leaks and performing preventive maintenance even more important to keep refrigerant emissions down and reduce the need to purchase additional HCFC-22. When the time does come to replace or retrofit an existing system, there are many alternatives available that are safer for the environment. EPA has listed several examples of alternatives in the table on the next page.

What Alternatives Can Be Used Instead of HCFC-22?
Many alternatives that are safer for the environment than HCFC-22 are available for use both in new rinks and in existing systems that require retrofit. See the table on the next page for a list of some acceptable non-ozone-depleting alternatives under EPA's Significant New Alternatives Policy (SNAP) Program. Some of these alternatives are listed for use in retrofitted HCFC-22 systems, and others are only listed for new ice rink refrigeration systems. A full list of acceptable alternatives under SNAP is available at www.epa.gov/ozone/snap/refrigerants/lists/icerinks.html.
### Acceptable Non-Ozone-Depleting Alternatives to HCFC-22 Under EPA’s SNAP Program

<table>
<thead>
<tr>
<th>Chemical</th>
<th>GWP</th>
<th>Ozone Depleting?</th>
<th>Retrofit</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>0</td>
<td>No</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>THR-03</td>
<td>918</td>
<td>No</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>R-134a</td>
<td>1,430</td>
<td>No</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>RS-24 (2002 formulation)</td>
<td>1,505</td>
<td>No</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>R-426A</td>
<td>1,508</td>
<td>No</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>R-406C</td>
<td>1,774</td>
<td>No</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>R-407F</td>
<td>1,825</td>
<td>No</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>R-442A</td>
<td>1,888</td>
<td>No</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>R-410A</td>
<td>2,088</td>
<td>No</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>R-407A</td>
<td>2,107</td>
<td>No</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

GWP = Global Warming Potential. GWP is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming relative to the same mass of carbon dioxide.

When considering an alternative for retrofitting a system, be sure to follow the manufacturer’s suggested handling and installation guidelines and to consider possible effects on the system’s energy consumption.

### Are There Other Refrigerant Regulations Affecting Ice Rinks?

Ice rinks are subject to refrigerant management regulations under section 608 of the Clean Air Act, specifically the requirement to keep leak rates below 15% for comfort cooling appliances and below 35% for refrigeration equipment. In addition, it is illegal to knowingly vent refrigerant—both ozone-depleting refrigerants and the alternatives—during servicing, maintaining or disposing of a refrigeration or air conditioning system.

### For Further Information
- Leak Prevention and Retrofit Guidelines: [www2.epa.gov/greenchill/reports-guidelines-and-tools](http://www2.epa.gov/greenchill/reports-guidelines-and-tools)

### Other EPA Resources for Ice Rink Managers
- Indoor Air Quality and Ice Rinks: [www.epa.gov/iaq/icearenas.html](http://www.epa.gov/iaq/icearenas.html)
- ENERGY STAR for Buildings and Plants: [www.energystar.gov/buildings](http://www.energystar.gov/buildings)

**FOR MORE INFORMATION** Visit [www.epa.gov/ozone/title6/phaseout/classtwo.html](http://www.epa.gov/ozone/title6/phaseout/classtwo.html) or contact David Donaldson at (202) 343-9086 or donaldson.david@epa.gov.

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1Several alternatives have been exempted from the venting prohibition. Examples include ammonia in commercial or industrial process refrigeration or in absorption units, and carbon dioxide, nitrogen or water in any application. A complete list is available in the U.S. Code of Federal Regulations at [http://go.usa.gov/kAhQ](http://go.usa.gov/kAhQ).
APPLICATION OF CLIMATE-FRIENDLY ICE RINK TECHNOLOGIES: BROOKLYN PARK COMMUNITY ACTIVITY CENTER

Name of Facility: Brooklyn Park Community Activity Center (CAC)

Location: 5600 85th Avenue North
Brooklyn Park, MN 55443

Type of Facility: Community multi-sheet rink
Rink area = 50,800 ft²

Technology/Refrigerant Used: Indirect ammonia/calcium chloride system

FACILITY OVERVIEW

The Brooklyn Park Community Activity Center (CAC) is a recreational facility located in Brooklyn Park, Minnesota, that is operated by the city. The facility is home to two regulation-size ice arenas that provide 6,700 hours of indoor ice time to approximately 100,000 patrons each year. The facility also hosts a gymnasium, racquetball courts, banquet rooms, walking track, outdoor skate park, and an on-site fishing pond.

PROJECT BACKGROUND

The original arena was constructed in 1983 and the second arena in 1997 with two 85’ x 200’ ice sheets that were served by separate refrigeration systems. Rink 1 used a direct ¹ R-22 Holmsten refrigeration system and

¹ A direct refrigeration system circulates the primary refrigerant directly through the ice rink floor.
The NH$_3$/CaCl$_2$ system does not need to circulate refrigerant through the spectator seating area; and

The system reduces the rink’s environmental impacts.

Brooklyn Park city officials elected to use NH$_3$ as the primary refrigerant in the new system because of its favorable environmental characteristics and high energy efficiency. In comparison to R-22, which has a Global Warming Potential (GWP) of 1,810$^3$ and an Ozone Depleting Potential (ODP) of 0.055,$^4$ NH$_3$ has zero GWP and ODP.$^5$ Brooklyn Park selected CaCl$_2$ as the secondary refrigerant in the new system because of its observed higher efficiency compared to glycol mixtures.

The modification of the ice arena’s refrigeration system was part of a larger energy efficiency retrofit project that used stimulus money from the federal government’s Energy Efficiency and Conservation Block to improve citywide energy efficiency.

Rink 2 used an indirect$^2$ ammonia (NH$_3$)/glycol system. The direct R-22 system consisted of two eight-cylinder reciprocating compressors, a low-pressure receiver, two pumper drums, an evaporative condenser, and a waste heat recovery system. The total heat extraction capacity of this system was approximately 136 tons (1,632,000 BTUs/hour). After 27 years of operation, the aging direct R-22 system began experiencing issues such as corrosion in the vessels and rink floor piping; three major leak events in the ice rink floor necessitated either significant repairs or replacement of the system.

In 2009, the City of Brooklyn Park began working with Stevens Engineers to design an indirect ammonia (NH$_3$)/calcium chloride (CaCl$_2$) system to replace both rink refrigeration systems. Brooklyn Park selected the design for the following reasons:

- The city already had experience using indirect systems in Rink 2;
- The NH$_3$/CaCl$_2$ system does not need to circulate refrigerant through the spectator seating area; and
- The system reduces the rink’s environmental impacts.

Schematic of the CAC’s current NH$_3$/CaCl$_2$ refrigeration system. The NH$_3$/CaCl$_2$ system is housed in the equipment room for Rink 2. Source: Stevens Engineers

$^2$ An indirect refrigeration system uses two refrigerants. A primary refrigerant stays confined in the ice equipment room and a secondary refrigerant is circulated in the rink floor.


$^4$ U.S. EPA. 2014. GWPs and ODPs of Some Ozone-Depleting Substances and Alternatives. Available at: www.epa.gov/ozone/snap/subsgwps.html

$^5$ Ibid.
SYSTEM DESCRIPTION

The new indirect NH₃/CaCl₂ system has a refrigeration charge size of 387 pounds of NH₃, which replaces the 6,000 pounds of R-22 and 1,200 pounds of NH₃ used in the previous systems. Brooklyn Park expanded the ice equipment room for Rink 2 to accommodate the NH₃/CaCl₂ system. The renovated equipment room now houses three compressors on concrete pads, an above-ground NH₃ containment tank, a chiller, a leak detection system, heat exchangers, and a combination of welded steel and high-density polyethylene piping. Each rink floor has approximately 10 miles of 1-inch piping.

Other Sustainability Measures

In conjunction with replacing the rinks’ refrigeration systems, three other cutting-edge modifications to the facility were made:

1) Replaced the energy- and water-intensive cooling towers used to cool the refrigeration system with a well connection to the city’s raw water system.

2) Used the city’s raw water as a geothermal coolant to reduce the refrigeration system’s energy use. The connection from the well provides water at 49°F, which allows the compressors to operate at temperatures lower than the minimum temperatures listed in the manufacturer’s specifications. The lower operating temperature requires half the electricity and produces double the capacity of a typical system.

3) Balanced the heating and cooling loads through an advanced control system, which makes use of warm and cold outdoor air when temperatures are advantageous to the system. The design allows heating systems to utilize waste heat in the facility from dehumidification, rink heat, snow melting, resurfacing, and subfloor heating.

SYSTEM PERFORMANCE AND COSTS

The Brooklyn Park CAC ice rink is now considered one of the most energy efficient ice rinks in the United States, and possibly the world. The new system requires half the energy of the previous systems to perform at the same capacity. The unique heat design and incorporation of the heat pump system allows the recovery and reuse of 95 percent of the waste heat that is generated from the refrigeration system. When compared to an indirect R-507 system, the two-sheet ammonia-based system is at least 15 to 20 percent more energy efficient. The Brooklyn Park CAC ice rink is also achieving additional energy efficiency gains due to the integration of the geothermal exchange system. The system uses advanced controls to lower the condensing temperature from a typical 96°F for NH₃ to approximately 52–57°F, resulting in increased operational efficiency. Overall, the city’s energy efficiency retrofit project is reducing its annual electric and natural gas consumption by 317,000 kWh and 11.1 million ft³.
respectively. The city’s overall energy efficiency retrofit project is reducing emissions by more than 1.7 million pounds of CO₂ equivalent annually, which is equivalent to taking more than 160 cars off the road every year.6 The ice arena upgrades account for nearly 30 percent of the project’s total carbon reductions.

The indirect NH₃/CaCl₂ system has experienced no refrigeration leaks to date. Furthermore, by selecting NH₃/CaCl₂ instead of hydrofluorocarbon (HFC) refrigerants, like R-507, additional greenhouse gas emissions are avoided.

A breakdown of the costs associated with the ice rink renovation is as follows:

• **Installation costs.** The overhaul of the two ice rinks cost $4.5 million, which the City of Brooklyn Park funded with grants, Heritage Infrastructure Funds, bonds sales, and utility energy savings rebates. Installation costs for indirect ammonia ice systems are typically 3.5 percent more than R-22 or HFC systems, since the systems usually require additional building renovation costs to address ammonia’s toxicity and mild flammability (e.g., a fire-rated room, vestibule on the entrance door to contain potential ammonia leaks, or exterior entrance).

• **Operation and maintenance costs.** Maintenance costs are somewhat lower for an industrial-grade ammonia system than a similar system using R-22 or HFC-based refrigerant because of the smaller equipment and increased efficiency in its operation. Maintenance costs include compressor oil changes, gasket replacements, and inspections, among other activities.

• **Costs savings.** The citywide efforts to improve energy efficiency are saving the city more than $250,000 per year in utility and other operational costs; the ice rink renovations are contributing approximately 25 percent to these cost savings. The citywide efforts to improve energy efficiency, which include the ice rink renovations, have an estimated payback period of just over 12 years.

**CHALLENGES AND LESSONS LEARNED**

The conversion to a new ice rink was a major undertaking, and with it, the Brooklyn Park CAC faced a number of construction-related obstacles, including finding sufficient space for the new systems, routing piping through the existing building, and working around day-to-day services and operations during renovation.

The Brooklyn Park CAC also had to overcome a challenge related to using the system’s waste heat for other building applications, since as a result of improvements to the energy consumption of the refrigeration system, the waste heat given off by the cooling plant became insufficient to continue to use as a source for many of the heating needs of the building. Introducing new heat pumps not only satisfied the hot water temperatures required by the facility but it also significantly reduced operation costs over time.

Other ice arenas have since been upgraded with similar designs using similar advanced control technology and climate-friendly refrigerants. The geothermal connection may be a viable option for some facilities, if local governments can access raw or finished water mains at a low cost. The controls and balancing of the system is applicable to any ice arena in any community.

The CAC’s previous R-22 refrigeration system.

Source: Stevens Engineers

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The past couple of years have seen a number of high-profile digital security breaches, from the theft of 40 million credit card numbers at Target stores to Russian hackers amassing over a billion online passwords. The global scale of these thefts can seem quite daunting. What can retail merchants do to protect their customers and limit their own liability?

WHAT ARE THE GUIDELINES?

In North America, a joint venture by the five major credit card brands (Visa, MasterCard, American Express, Discover and JCB International) formed the Payment Card Industry Security Standards Council (PCI) in 2006. The PCI Council maintains and revises the standards for secure credit card transactions as needed. The current Payment Application Data Security Standard is version 2.0 (PA-DSS v2.0).

If you use point-of-sale software for your credit card transactions, you should visit the PCI Security Standards Council’s website [pcisecuritystandards.org > Approved Companies & Providers] and search for your POS software provider to confirm that your POS software is PA-DSS v2.0-certified. Be sure to check the version number and compare it to the version of the software you have installed; running an older version of currently compliant POS software does not mean you are covered.

Unfortunately, if you are not using a PA-DSS v2.0-certified POS software, you may be required to fill out a PCI Self-Assessment Questionnaire. Using a Validated Payment Application means that your software provider has, in effect, already answered these questions for you. In other words, using PA-DSS v2.0 POS software takes the merchant “out of scope,” meaning that you are not required to pass the rigorous data security standards yourself.

There are steps beyond using a Validated Payment Application that merchants can take to remain compliant. For example, you shouldn’t be using Windows XP on any computers, especially POS machines, as it is no longer supported by Microsoft. That means if a potential security issue is discovered, it will not be fixed!
Another way of doing business that should be a thing of the past is customers filling out registration forms that include writing down a credit card number. Your POS system probably provides alternatives to this process, such as website registrations. In the event that a merchant is still using pen and paper to accept credit card payments from customers, the forms should be destroyed (i.e. shredded) once the card number has been entered for processing.

Storing credit card numbers for recurring billing and payment plans is another challenge of the digital age. PA-DSS v2.0 POS systems provide secure digital storage options for credit card recurring billing (a process known as “tokenization”). Spreadsheets or paper storage of credit card numbers are not PCI-compliant and are vulnerable to a security breach.

Did you know it is against the merchant agreement to store the short security code (aka CVV2, CVC2, CID) in any form, and merchants who violate this rule could be subject to a fine?

**MEETING THE STANDARD VS. BEATING THE STANDARD**

Hopefully you’ve visited the PA-DSS website and confirmed that your POS software is a Validated Payment Application. You might want to try this experiment: go to one of your POS terminals and open up Notepad on the screen. Now swipe your credit card. Do you see your name, your address, your full credit card number? That doesn’t seem very secure, does it?

The fact is, if you want to do everything you can to ensure total credit card security, you need to go beyond the PA-DSS standards. The best technology that is widely available at the current time is called Point-to-Point Encryption, or P2PE for short, and it can be surprisingly easy and cheap to implement. Ask your POS provider if they support P2PE and how you can implement it at your facility. Generally, this involves purchasing a USB card reader for each POS unit. These come directly from your credit card processor; they encrypt the card data as soon as it is swiped, and the data can only be decrypted by the processor themselves. As an added bonus, they can usually be installed as customer-facing readers so that your employees never have to handle customer credit cards (another potential source of fraud).

**PREPARING FOR THE FUTURE**

EMV cards, also known as “Smart Cards” or “Chip and PIN” (as opposed to “Swipe and Sign”) technology have long been the standard in Europe. They combine...
P2PE technology with a secure microchip embedded in the card and a PIN code much like ATM cards. In fact, Chip and PIN is so secure that 67 percent of all credit card fraud in the United Kingdom comes from transactions that take place in America, where the PIN can’t be verified.

Recently, all major U.S. credit card issuers announced that “Fraud Liability Shift” will be effective as of Oct. 1, 2015. According to the card issuers: “The party that has made investment in the most secure EMV options is protected from financial liability for card-present fraud losses for both counterfeit and lost, stolen and non-receipt fraud on this date.” In other words, switch to EMV by Oct. 1, 2015 or you, as a merchant, could be held liable for credit card fraud at your facility, even if the fraud itself was out of your hands (i.e., a stolen card was used at your POS).

Although EMV credit cards are not yet widely used in the United States, EMV card readers are now available for installation. Ask your POS provider or credit card processor about upgrading your processing technology to this new standard.

**GETTING AHEAD OF THE CURVE**

Preventing credit card fraud is a responsibility shared by all: card issuers, consumers, merchants, POS providers and card processors. Make sure you are doing everything you can to protect yourself and your customers.

1. **Review:** Take a close look at how you handle credit card data. Is your POS certified on PA-DSS v2.0? Are your computers running Windows XP? Do you have filing cabinets filled with registration forms that contain credit card data? Are your card readers encrypted?

2. **Improve:** Upgrade to the latest version of your POS software. Shred those old registration forms and implement secure digital card storage. Invest in point-to-point encryption.

3. **Prepare:** Have a plan for moving to EMV technology in time for the Oct. 1 deadline. Communicate with your POS provider and your credit card processor frequently and make sure you’re keeping up with the ever-changing credit card processing landscape.

**CREDIT CARD COMPLIANCE CHECKLIST**

- Use a Validated Payment Application Point of Sale system.
- Upgrade Windows XP to Windows 7.
- Don’t write credit card numbers down, ever!
- Shred old paper registration forms that still have credit card numbers written on them.
- Don’t save credit card numbers in Excel or MS Word files.
- Invest in credit card “tokenization” (secure storage) for recurring billing needs.

Christopher Boudin works in training and support for Frontline Solutions, a leading provider of integrated point-of-sale, scheduling and ticketing software.
New England’s rich history makes it a fitting match for the 2015 ISI Ice Arena Conference & Trade Show. Both Boston and ISI know the value of time-tested traditions and independence built on a strong foundation. Both also know what it takes to keep pace in a dynamic, competitive world.

For well over a half-century, as the first and only independent national ice arena trade association, the Ice Skating Institute has been providing business development opportunities for ice arena professionals and exhibitors.

We last made Boston our conference destination in 2006; this time we will gather in the Boston North Shore area, a short drive from historic downtown Boston and Logan International Airport.

Don’t miss the industry’s top trade show of 2015, where you are sure to refresh existing relationships and form valuable new ones. Plan now to join us at the DoubleTree by Hilton Boston North Shore for a rewarding event.

skateisi.org/conference
### TUESDAY - MAY 26

**CAE CLASS**

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>8 a.m.</td>
<td>Orientation / Role of the Arena Manager</td>
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<tr>
<td>9 a.m.</td>
<td>Leadership &amp; Personal Image</td>
</tr>
<tr>
<td>10 a.m.</td>
<td>Orientation / Human Resources</td>
</tr>
<tr>
<td>11 a.m.</td>
<td>Orientation / Role of the Arena Programmer</td>
</tr>
<tr>
<td>Noon</td>
<td>Orientation / Role of the Skating Director</td>
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<tr>
<td>1 p.m.</td>
<td>Be an Effective Public Speaker</td>
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<tr>
<td>2 p.m.</td>
<td>Off-Ice Training &amp; Conditioning</td>
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<td>Identifying Your Green Initiative</td>
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### WEDNESDAY - MAY 27

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<tr>
<td>10 a.m.</td>
<td>Electronic Marketing</td>
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<tr>
<td>11 a.m.</td>
<td>Competitive Programs</td>
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<tr>
<td>Noon</td>
<td>Dance Steps Q&amp;A</td>
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<tr>
<td>1 p.m.</td>
<td>Sports Injury Prevention</td>
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<td>2 p.m.</td>
<td>Optimal Growth Environment for Athletes</td>
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### THURSDAY - MAY 28

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**BREAKFAST ROUNDTABLES (SKATING)**
- Everything ISI
- Grants & Fundraising
- PSA Ratings Q&A
- Teaching Beginning Hockey Skills
- Dance Steps Q&A

**BREAKFAST ROUNDTABLES (MANAGEMENT)**
- Managing Multiple Facilities
- Maximizing Your Ice Surface
- Internship Programs
- How to Spot Child Predators
- Birthday Party Ideas

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**CERTIFICATE OF ARENA MANAGEMENT #1**
**CERTIFICATE OF ARENA OPERATIONS #2**
**CERTIFICATE OF ARENA PROGRAMMING #2**
**CERTIFIED SKATING DIRECTOR**
**SKATING SESSION**

*Registration and attendance at all sessions required to take exam and receive certification; however, individual sessions are open to all conference attendees. The Certified Skating Director course is offered in its entirety. The Management: Operations course is divided into three parts. Students can complete the three parts at the same time or individually.*
Whether you’re an ISI conference regular, an occasional attendee or a first-timer, the 2015 ISI Ice Arena Conference & Trade Show will provide outstanding opportunities and rewards. Take your professional development to the next level at this program-packed industry event.

LOCAL ATTRACTIONS
Our conference hotel in Danvers features one of the largest indoor water parks in New England and is just minutes from Salem, home to rich history and popular attractions like the Salem Witch Museum and House of the Seven Gables. Also nearby are the artists’ colony of Ipswich, a hidden gem for great beachside restaurants; stunning Marblehead, birthplace of the U.S. Navy; and Gloucester, where The Perfect Storm was filmed.

GUEST SPEAKERS
Acclaimed speaker, author and international stress management and humor consultant Loretta LaRoche will open the conference with the keynote address. Organizations worldwide use her prescription for laughter to manage stress in the workplace and improve morale.

World and Olympic coach Frank Carroll will be our featured on- and off-ice skating presenter. He will also be honored during the Awards Dinner with the ISI Lifetime Achievement Award.

CERTIFICATION OPPORTUNITIES
Following last year’s enthusiastically received introduction of all four iAIM track offerings at the annual conference, the full certification spectrum will once again be available. This year’s schedule also features the option of specially priced one-day certificate courses that conclude with admission to the ISI Trade Show and reception.

SUNSET CRUISE
This year’s conference will conclude with a sunset cruise benefiting the ISIA Education Foundation’s scholarship program. Join us aboard the Hannah Glover as we cruise Salem Sound, taking in the shorelines, secluded Misery Islands, historic lighthouses and luxurious yachts and estates. Heavy hors d’oeuvres served; cash bar available. Bus leaves hotel at 6:45 p.m. Thursday, May 28.

Whether you’re an ISI conference regular, an occasional attendee or a first-timer, the 2015 ISI Ice Arena Conference & Trade Show will provide outstanding opportunities and rewards. Take your professional development to the next level at this program-packed industry event.

NEW! ONE-DAY CERTIFICATE COURSES†

**WEDNESDAY, MAY 27**

**iAIM Equipment Maintenance Certificate Course for Operations Staff**
The morning starts in the hotel conference area (DoubleTree by Hilton Boston North Shore).
8-9 a.m. – Refrigeration
9-9:30 a.m. – Dehumidification
9:30-10 a.m. – Ice Resurfacers
Private bus transportation to and from FMC Cronin Ice Rink
11 a.m.-Noon – (at rink) Hands-on Training
1-7 p.m. – ISI Trade Show & Reception
3:30 p.m. – Exam session at hotel
6 p.m. – Certificates presented at ISI Trade Show

**weSKATE Instructor Training (Core or Intermediate) for Coaches**
The morning starts at the FMC Cronin Skating Rink.
7:15 a.m. – Private bus transportation to FMC Cronin Ice Rink
8-8:45 a.m. – Hockey Skills
8:45-9:30 a.m. – ISI Dance Step Sequences
9:30-10:30 a.m. – Ice Dancing and Synchronized Skating
10:30-11:15 a.m. – Choreography with Mark Mitchell
11:15 a.m.-Noon – Jump Technique with Frank Carroll
Bus transportation back to hotel†
1-4 p.m. – weSKATE certification course and exam
Choose Core (Tot-Delta) or Intermediate Level (FS 1-5)
1-7 p.m. – ISI Trade Show & Reception
6 p.m. – Certificates presented at ISI Trade Show

†Registration and attendance at all sessions required to take exam and receive certificate; however, individual sessions are open to all conference attendees.
WHERE WILL ISI TAKE YOU IN 2015?

ISI Winter Classic
Feb. 13-15
St. Peters Rec-Plex
St. Peters, Mo.
Entry/test deadline: Dec. 1
skateisi.org/winterclassic

ISI Conference Championships
May 22-24
Nashoba Valley Olympia
Boxborough, Mass.
Entry/test deadline: March 1
skateisi.org/conferencechamps

ISI Synchronized Championships
April 10-12
Goggin Ice Center, Miami University
Oxford, Ohio
Entry deadline: Feb. 1
skateisi.org/synchro

ISI Adult Championships
Oct. 23-25
Las Vegas Ice Center
Las Vegas
Entry/test deadline: Sept. 1
(Sept. 10 for Collegiate)
skateisi.org/adultchamps

ISI World Recreational Team Championships
July 27-Aug. 1
Edge Ice Arena & West Meadows Ice Arena
Bensenville & Rolling Meadows, IL
Entry/test deadline: May 1
skateisi.org/worlds

ISI Holiday Challenge
Dec. 4-6
Dr Pepper StarCenter
McKinney, Texas
Entry/test deadline: Oct. 10
skateisi.org/holidaychallenge
If you have attended an ISI Conference & Trade Show or worked at a rink that owned a Zamboni ice resurfacing machine in the last 28 years, you have probably crossed paths with Doug Peters.

As a regional sales manager for the Zamboni Company, Peters can be found making sales calls, deliveries and service visits all over the country as well as participating in regional industry association meetings and the annual ISI Conference & Trade Show, where he serves as presenter, instructor, exhibitor and party host.

Peters’ role with the Zamboni Co. has taken him from coast to coast and beyond, opening doors and expanding horizons that he never thought possible when growing up in Minnesota, playing hockey and working in a bowling alley. An early brush with fame came when he skated in his high school hockey tryouts against now-retired NHL player and 1980 U.S. Olympic hockey team member Mike Ramsey. After losing his spleen to the game, Peters gave up the playing but not the passion.

“I’ve been truly blessed to have been able to attend events such as the 2002 Olympics in Salt Lake City, where I caught the puck that scored the winning goal against the Russians,” he recalls. “The number of great hockey players I have met is a long list, but I think that getting to hold the 1956 Olympic silver and 1960 gold medals of Dick Rodenhiser as well as sell him a machine ranks near the top.”

Peters’ job has taken him to most of the 50 states and to China and Japan. In addition to his travels and memories, Peters says he treasures the lifelong friendships he has developed through his work, not to mention his relationship with the Zamboni family. “They have treated me as if I were part of their family over the years, and it has made coming to work an enjoyable experience. They understand the ice rink business, which they have been involved in since Frank Zamboni built his first rink in Paramount, California. They know that without a machine that runs, the rink can’t operate. I’m proud of being a part of this great family business as we near the sale of our 11,000th machine.”

Peters’ history with the Zamboni Co. dates back to his youth, when his father, Bill Peters, became a distributor, working from the basement of their Minneapolis home. “My father was a big influence on me about the importance of working hard and...
providing for your family,” notes Peters, who started working part-time in his father’s business, R&R Specialties, after graduating in radio broadcasting from the Brown Institute in 1981. “I sharpened blades for the Zamboni machines, filled and shipped parts orders and learned to troubleshoot machines. Little by little, I developed more knowledge about the machines, which led me to request an interview with the Zamboni Company in 1987.”

Needless to say, Peters got the job, and for 28 years has helped forge relationships with industry groups while supporting current and prospective owners of Zamboni ice resurfacing machines. “Doug’s broad knowledge of the business and commitment to the ice arena operators has benefited the industry as a whole,” says company President Richard Zamboni. “I’m proud to have Doug on our team and know that our customers are happy to have strong, longstanding relationships with him.”

Peters’ history with ISI predates his Zamboni Co. employment, when he attended the annual conference and trade show with R&R Specialties, which his father sold in the late 1990s. Peters became the builder/supplier representative on the ISI board of directors in 1997 and has served on several ISI committees. “I met Doug when the Zamboni Company hired him over 25 years ago,” says former ISI President Jim Hartnett. “He was a young kid from Minnesota going to work for one of the most prestigious companies in our business, relocating to California. Even then, Doug was not shy to offer his opinion. His enthusiasm was contagious.

“Since then, he has developed into one of our most ardent supporters, still quick to offer constructive criticism but always there to lend his talents and support. Doug has an undying loyalty to the ice arena industry and his involvement and dedication to the ISI is without question.”

Peters’ contributions have been recognized with ISI’s 2003 National Merit Award and 2011 Man of the Year Award. He and his wife of seven years, Vangie, have a blended family of five children and five grandchildren. They are avid Anaheim Ducks fans and enjoy spending as much time as possible in Hawaii, where they hope to spend part of their retirement when that time arrives. Peters’ other post-career goals are to advocate for adopted children, raise funds for cancer research and catch walleyes in northern Minnesota.

In the meantime, he wants to see YOU at this year’s ISI Conference & Trade Show in Boston. “The educational programs that the ISI offers have helped to increase the knowledge of those working in the industry,” he says. “Conference and trade show attendance offers great opportunities to talk to people face to face and develop relationships that can last a career or, even better, a lifetime. This cannot be accomplished while surfing the Internet. Bring your smartphone and see what you have been missing if you haven’t been to an ISI Conference and Trade Show recently.”
Did you know that the Ice Skating Institute is a non-profit association governed by a board of directors? The United States is divided into 17 ISI districts, each with an elected director who serves on the board as the liaison between the member facilities in their district and the board of directors and ISI national office. This volunteer position comes with a number of responsibilities as well as rewards.

**District Director’s Purpose:**
To act as a voting member of the board with full authority and responsibility to set direction, develop policies and regulations for the operation of the organization; to monitor the financial health, membership, programs, services and overall performance of the organization; to support and assist the ISI office within the district; and to provide resources to meet the needs of those the organization serves.

**District Director’s Responsibilities:**
To represent and actively promote the ISI as well as its programs and services to arenas, skating schools, skating clubs, hockey organizations, regional associations, vendors and other industry stakeholders within their district.

**District Director’s Board Meeting Role:**
Prepare for and participate in board and committee meetings, including appropriate organizational activities. Ask timely and substantive questions at board and committee meetings consistent with their conscience and convictions, and the opinions of their constituents, while supporting the majority decision on issues decided by the board.

**Additional Director Responsibilities:**
- Chair meeting of district members at annual conference and at additional times/locations as necessary/desired.
- Prepare written board reports outlining district activities.
- Maintain accurate records/files of all district business and activity.
- Contact each new district member to welcome them to ISI as well as each expired member to encourage them to renew their ISI membership.
- Welcome and orient new district members.
- Welcome and mentor new board members.
- Recruit new members for ISI.
- Act as liaison between the board/national office and district members.

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**NEW! FLIP’S TOT BADGES**

Motivate and reward your beginner skaters with the colorful new test badges featuring Flip!

- 1-9 badges: $1.25/each*
- 10-24 badges: $.75/each*
- 25+ badges: $.50/each*

*Plus nominal shipping fee

Place your order with the form at skateisi.org/flipbadges or call the ISI office at (972) 735-8800.
• Plan/organize annual district instructor/manager seminar.
• Set district competition schedule and set rules to avoid scheduling conflicts.
• Attend/support inter-rink competitions and tournaments within district. Whenever possible, help with publicity and judging (if a certified judge).

District Director Elections:
• The directors representing districts shall be elected by the members of their district and shall be elected to two-year terms.
• Districts with even numbers shall elect their directors in even-numbered years, and districts with odd numbers shall elect their directors in odd-numbered years.
• Elections shall be held in accordance with the most recent election policy adopted by the ISI board of directors.
• Each district shall elect a chairperson and a vice-chairperson.
  • NEW! Voting for your district director will now be done online. This will allow for more district-wide participation in choosing your representative. If you are a voting representative for your member facility, watch for an email in April asking you to vote for your district candidate.

Bylaws of the Ice Skating Institute can be found in their entirety in the 2015 Membership Directory.

"As an ISI district director, it is my responsibility to let coaches and managers know how they can use ISI to promote their business and people in the sport of ice skating. If we give the public an introduction to ISI, they will see the benefits of being in this great sport and possibly develop a lifelong passion … After several years of serving as a district director, I find it rewarding to share ideas with other coaches and managers. By networking in this role, I am continuing to learn about how people think and how they work with others. Although there are small goals each year that I try to accomplish, I always keep the big picture in mind. It is always about helping managers, coaches and students to thrive in this industry."

—Debbie Lane, District 12 Director

“My responsibility as a district director is to promote and grow ISI in our district. My goal as a new director is to grow ISI through administrative members so we can have more competitions in our area.”

—Julie Goddard, District 6 Director

Over 400 NHL, Triple A, Double A, Collegiate, Recreational Ice Rinks and Curling Clubs Across North America are Fog, Condensation, Mold and Drip Free.

Why? They have ARID-Ice™.

These facilities benefit from ARID-Ice desiccant dehumidification for full capacity enhanced humidity control while maintaining automatic indoor air quality. ARID-Ice units are equipped with:
• Turbo Vapor Boost™ reactivation energy control circuitry providing extreme capacity in humid conditions.
• State-of-the-art enhanced silica gel desiccant wheel with long lasting seals.
• Highly efficient reactivation circuits that deliver dry air on demand maximizing the capability of the ice plant and maintaining a dry building.

ARID-Ice by Controlled Dehumidification IMS has provided humidity and indoor air quality control equipment to the Pittsburgh Penguins, New Jersey Devils, Jacksonville Barracudas, Florida Panthers, Houston Aero’s, University of Notre Dame and Penn State University to name a few.

Contact our application specialists to learn how your arena can benefit from ARID-Ice technology.
Call 810-229-7900 today and visit cdims.com.
PREVENTING INJURY in the Young Skater
by Andrea Sobieraj, MS, CSCS

Good athletes of any sport are defined by their genetics, training (and trainability), nutrition status and psychological traits. Our goal as coaches is to continuously advance their skills and performance, while maintaining their interest and joy of the sport. Growing skaters have many considerations as they are experiencing major physiological changes that can increase their risk for injury.

Skating requires balance (often long, eccentric holds), power, agility and endurance. You must consider where your athletes’ base talent arises. Are they endurance-dominant or power-dominant? You want to train to optimize their strengths while enhancing their weaknesses.

Muscle is made up of slow fibers (endurance) and fast (power) fibers. The distribution that each person has is mainly determined via our genes. You need to train a muscle in the velocity in which you want it to perform.

Think of recovery as a training day — it is that important.

Simple signs that a skater is becoming over-trained are frequent upper respiratory tract infections, staleness, repetitive injuries, elevated resting heart rate and decreased performance. Always taper training volume first and keep intensity and technique. In particular, agility (e.g., lots of footwork patterns) will lead to stronger biomechanics and quicker responses, which can prevent an injury.

You also may have noticed that many young skaters, when even performing a simple dip, have their knees go in a valgus (“knock-knee”) position. This is referred to a Q angle (Fig. 1). Although females have larger Q angles post-puberty than age-matched males, pre-puberty males and females both have a tendency to push their knees together. The quad muscles just are not strong enough pre-puberty to keep the knee in position past a certain squat point. Review correct squatting technique off-ice. Look at the knee position and make sure that the knee is not going over the toes. A one-leg quarter-squat to half-squat is in a majority of skating positions, so teaching proper position is one to tackle and correct early on. This will also lead to neurological and strength gains continuously in the quads.

When a skater has a large growth spurt in height, this leads to a muscle imbalance as the neurological growth and muscle growth are mismatched. A skater may suddenly seem to regress in skills while accommodating their new body mechanics. This is a time when skaters are most vulnerable to fractures as bone tissue is elongating at a great speed and coordination temporarily falls.

During a peak height velocity, it is ideal to focus on flexibility and agility. In addition, a female skater who has gone through puberty has the introduction of the hormone relaxin (an overall whole body ligament relaxer). Relaxin is high post-ovulation and, if combined with a large Q angle and poor landing mechanics, is a perfect recipe for a ligament injury to the knee.

It is essential to continuously work on landing mechanics off-ice. Off-ice training must also include strengthening of the core muscles. Without a strong core, posture fails and injury can occur.
A proper squat cannot even be accomplished without a strong core. Consider that if one has good abdominal and upper and lower back strength, then the spine is properly aligned. If the spine is aligned properly, then all movements through the body’s planes are optimizing the natural and optimal movement direction of the muscle fibers. Planks are a great way to establish core strength.

Warming up and cooling down are also important in preventing injury. A dynamic sport-specific warm-up from 3 to 10 minutes is ideal. A suggestion would be several laps around the rink with big, eccentric (lengthening) arm and leg movements, over-extending strokes and not doing the intricate footwork. The goal is to get blood to the muscles to increase their temperature as well as increase the muscle oxygen availability. Following the dynamic warm-up, common leg stretches are good. Hold stretches for 15 to 30 seconds, repeat three times and do not bounce through stretches. After a training session, a similar pattern of your dynamic warm-up (at a much decreased intensity) and more intricate stretching is ideal and a great window to gain flexibility.

As coaches, we know that injury does occur sometimes despite our best efforts. In the event your skater is off-ice, use the down time to do exercises that they are medically cleared to do. Be careful not to let a skater return to the ice too soon. It takes weeks for proper healing. Often when the pain of an injury goes away, skaters feel like they are ready to return to the ice. Remember that the healing process is not necessarily complete just because the pain has left; often it is not, and then we have a skater with a reoccurring injury.

In summary, each skater will progress in skills and growth at different speeds. The years they have in training may not match their biological age. Check in with your growing skaters; ask if they are fatigued or having any joint pain. Be wise to make adjustments even if it means a temporary setback in training or performance. We gain more by letting the body adjust and adapt through proper recovery than by pushing through.

We gain more by letting the body adjust and adapt through proper recovery than by pushing through.

Andrea Sobieraj teaches exercise physiology at Brown University. In addition, she is a skating director at FMC Driscoll Arena in Fall River, Mass. and at FMC Hetland Skating Arena in New Bedford, Mass. She is also co-owner of VO2breathe, a metabolic fitness company. Read her articles on training and nutrition at vo2breathecom.
Get in the Game
for Worlds of Fun in Chicago!

World Recreational Team Championships
July 27-Aug. 1
Edge Ice Arena & West Meadows Ice Arena
Bensenville & Rolling Meadows, IL
Entry/test deadline: May 1

Skateisi.org/Worlds

ISI Judge Certification Tests

Congratulations to the following instructors who have recently passed ISI judge certification tests:

**GOLD**
Samantha Amato
Sara Bailey
Gina Cecchetti
Michelle Devine
Jenny Farley
Erica Hilleren
Linda Huber
Vera Mammatkulova
Brandy Martinez-Lemke
Jamie Mathews
Sean Rice
Jeannine Salman
Chanelle Schoonmaker
Tamara Smulson
Lauren Villani

**SILVER**
Renee Albano
Sara Bailey
Heidi Bobier
Michelle Devine
Jennifer Duncan
Carah Ferrill
Kathleen Gidas
Ellen Giesy
Erica Hilleren
Maren Macgregor-Hannah
Vera Mammatkulova
Brandy Martinez-Lemke
Jennifer Nieman-Smith
Cathy Nyborg
Alicia Quinn
Sean Rice
Lisa Ritchie
Marti Saurer

**BRONZE**
Lesley Bissett
Katrina Bjorkstrand
Alexis Blodgett
Rhiana Brammeier
Brooke Brannon
Melissa Brown
Kathryn Chicotel
Joy Cook
Tracey Dolan
Molly Driscoll
Jennifer Duncan
Laura Dye
Perri Faulk

**SYNCHRO**
Shannon Adams
Shaun Bailey
Mellissa Brown
Mary Casale Goodley
Diane Fox
Lindsay Gillis
Andrea Iannalfo
Heather Hope Robinson
Crystal Smith
Tisha Walker-Green

**REFEREE**
Barbara Drake

Corinne Small
Lauren Villani
Janice Wallace
Amanda Wilson
The Rinks-Westminster ICE is gearing up for its third annual Sertoma Fantasy Ice Skating Camp for deaf and hard-of-hearing (DHH) youth, planned for August. Last year’s camp — sponsored by The Rinks, OC Deaf and Goodwill Industries — provided figure skating and hockey instruction for 16 girls and boys, ages 6 to 17.

Run by 27 volunteer coaches, sign language interpreters and other helpers, the four-day camp was held from 9 a.m. to noon, and the $40 registration fee included skating lessons, rental skates, games, snacks and a recital on the last day, complete with an awards ceremony and pizza party.

The goals of this camp are to provide an opportunity for the DHH to learn to skate and interact with others in the DHH community, and to show that being able to hear is not a requirement to love ice skating.

Sertoma, a nonprofit organization with 20,000 members throughout North America, draws its name from “SERvice TO MANkind.” Founded in 1912, its mission is to improve the quality of life for those impacted by hearing loss.

Sertoma’s baseball/softball camp was started 17 years ago, sponsored by the Los Angeles Angels, OC Deaf and Goodwill Industries. After volunteering at the baseball camp in 2012, I approached Maurie Thomas, president of the Downey Sertoma Club, about starting an ice skating camp. With his help and the support of the club and its members, our camp began in 2013 with 13 campers.

Last year we had four volunteers who are either deaf or hard-of-hearing, including Krisztina Fulep and Sharon Ann Dror. Krisztina is from Hungary where she worked for 10 years as a teacher’s assistant at the Budapest School for the Deaf.

Sharon was a competitive figure skater from 1971-84. In 1976, she competed in the Pacific Coast Sectional qualifying competition against world-ranked skaters including Rosalyn Sumners, Tiffany Chin and Elaine Zayak. When Sharon heard about the camp, she was excited to be involved.

It is a joy for the volunteers to share in the skaters’ successes. During the recital, we saw a big smile on a camper’s face when he gained the confidence to skate away from the railing, then hold his hockey stick over his head in victory after shooting the puck into the net. This made all of our hard work worthwhile.

The Rinks-Westminster ICE now has “Sertoma Skate” during Sunday afternoon public sessions where DHH skaters and their families get together to have fun and improve their skating skills. Several of our skaters are competing in ISI competitions. In December, they enjoyed skating together in the rink’s annual holiday show.

We will have our second ice skating camp fundraiser in March at The Rinks-Westminster ICE. Last year more than 200 people came to support the event. All donations go toward camp expenses and scholarships. We anticipate having more campers and volunteers at our third annual ice skating camp in August.

For more information about the Sertoma Fantasy Ice Skating Camp, contact me at penny.ocsertoma@aol.com or visit ocdeaf.org/iceskatingcamp.

Penny Pereboom is an instructor at The Rinks-Westminster ICE in Westminster, Calif. and director of Sertoma Fantasy Ice Skating Camp.
Thank you to everyone who participated in this year’s ISI World Recreational Team Championships in Marlboro, Mass. A heartfelt thanks to all of the volunteers and District 1 clubs that donated their time and efforts to making the event so successful.

District 1’s competitive season kicked off with the Halloween Classic competition hosted by the Winterland Skating School Oct. 25-26 and was followed by the Icicle Invitational hosted by the Navin Arena Dec. 6. Both competitions were, as usual, very successful and enjoyed by all. We have several competitions coming up in 2015 including the ISI Conference Championships coming to Boxborough, Mass. in May. We look forward to everyone’s efforts for a great competitive spring!

District 1 is also excited that the ISI Conference & Trade Show will be in our own back yard. We held our annual seminar on Oct. 5 in Raynham, Mass., and many professionals are excited to have the opportunity to learn more. In addition to introducing the new dance steps and learning about the new rule revisions, we had a wonderful guest speaker, Jennifer Rago from the Micheli Center, who spoke about conditioning and injury prevention. We were also very lucky to have many veterans in attendance, which spurred some dynamic discussions about judging ethics and the business of coaching. Finally, we announced the recipients of our 2014 professional awards. Congratulations to Kerry Ruffin of the William L. Chase Arena in Natick, Mass., Coach of the Year, and to Jessica Proctor of the Cronin Arena in Revere, Mass., Director of the Year.

As a final note, 2015 is an election year for District 1. The new online process for the election is explained on page 26 of this magazine. Nominations will be requested in advance. Watch for more information on the District 1 website (isidistrict1.com), and don’t forget to like us on Facebook.

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**weSKATE 3.5** Class Management Software® is an all-in-one solution that plans, organizes and manages details of your ISI learn-to-skate program. Now multiple computers in your arena can access the **weSKATE** database at the same time.

Go to www.skateisi.org/CMS to learn more about how to download your FREE copy.
ISI District 5
(Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee)
by Larry LaBorde, District Director, and Julia Hardin, Skating School Director, Chalet Ice Rinks

The Scott Hamilton Skating Academy opened in August at the new Ford Ice Center in Antioch, Tenn., just outside of Nashville.

In addition to the 27th Annual Nutcracker On Ice at the Ice Chalet, the Point Mallard Figure Skating Club sponsored “Whoville On Ice” and Ober Gatlinburg presented their annual Christmas Show.

For the third year in a row, the Ice Chalet in Knoxville will host the ProSkaters East Coast Live Auditions and Performance Camp April 11-12. After a day and a half of seminars on show skating skills, performance and preparation tips, and a lot of on-ice choreography, the skaters will demonstrate what they have learned in a show. Professional auditions for the participants will follow the show. Last year’s producers represented Feld Entertainment, Willy Bietak Productions, Advanced Entertainment Group, Rand Productions and Ice-America.

The Ice Chalet’s 46th Annual Robert Unger ISI Team Competition, to be held March 27-29, will be the District 5 Championships for the first time in many years.

ISI District 6
(Michigan)
by Julie Goddard, District Director

Just a quick update from District 6 and cold Michigan! I had the opportunity to travel to the ISI office in Dallas in January. What a GREAT experience, which I plan to share with all of our District 6 members. That office is full of rich history and everyone should try to visit at least once.

As this edition comes out, District 6 will be closing out our district competition season. We are looking forward to some new ideas in the hopes of expanding our competition season to include some new arenas in the upcoming year.

Several of our synchronized skating team will be attending the ISI Synchronized Champs at the beautiful Goggin Arena at the University of Miami in Oxford, Ohio. We look forward to competing against teams from around the country. And, of course, our teams can’t wait to meet Flip for the first time!
ISI District 8
(Chicago/Milwaukee Metropolitan Area)
by Amy Forbes, District Director

District 8’s season is well underway. The district has eight competitions scheduled between January and April. We hope the number of competitors increases for each competition being held.

So far we have seen success with the new dance step patterns at the competitions that have already been held. It seems as though coaches have been utilizing all forms of information about the changes to help their skaters succeed and make a smooth transition with the changes.

District Championships will be held at the Homewood Flossmoor Ice Arena. There will be a few new things added to this year’s Championships. First, each rink will be able to nominate one competitor for a Good Sport Award. Second, the District 8 board will be hosting two parent information meetings at the competition. These meetings will cover three topics: how judging works, ISIA Education Foundation Scholarship information and 2015 ISI Worlds. We hope that these will be a successful addition and will continue to be offered in years to come.

Most of our rinks are in full planning for their annual shows that are a highlight for the skaters and the rinks as well. Planning for Worlds in our district is in progress. We hope that the other districts are excited to be coming to Chicago. We realize early planning leads to success for everyone.

ISI District 11
(Arkansas, Louisiana, Oklahoma, Texas)
by Caroline Baker, District Director

2014 was a good year for District 11. Many rinks from our district participated in the ISI Synchro Champs, Worlds and Adult Champs. We are hoping for even more national competitors in 2015.

District 11 is very excited to be hosting the 2015 ISI Holiday Challenge at the Dr Pepper StarCenter-McKinney, Texas Dec. 4-6.

Learn-to-skate classes returned after the winter holiday break, with coaches busily preparing skaters for testing and the start of another year of competitions.

The Dr Pepper StarCenter-McKinney is also hosting the Love to Skate Competition Feb. 14-15.

March and April are spring break time for many rinks in District 11. ICE at The Parks has several promotional events during spring break for local schools in the area, such as Theme Skate Night and Beginner Skate class specials.
May brings the ISI Worlds entry deadline (May 1), the District 11 Competition May 15-17 at the Dr Pepper StarCenter-Farmers Branch, Texas and the ISI Conference & Trade Show in Danvers, Mass.

Summer camps begin in June throughout the district, and the second half of the year promises to be just as busy as the first half!

**North East Ice Skating Managers Association (NEISMA)**
*by Jeffrey Rubin, President*

Spring is in the air! We can now start looking forward to switching gears and getting into the springtime mode of our facilities. Now is the time to start making plans for those renovation projects, equipment repairs or that well-deserved vacation you have been too busy to take.

Spring is a very good time to invest in your staff and reconnect and learn from the past season. Take the time to listen to what they have to say as they are your front line in dealing with your customers. Whether they are new or seasoned staff, listen and learn. Sometimes the little things get overlooked by seasoned employees. It is always good to have your business looked at with fresh eyes.

With that being said, NEISMA is looking forward to having the ISI Conference & Trade Show coming to New England this year. Just north of Boston is an ideal location for hosting. It is close to the beaches as well as the great city of Boston! With lots of activities planned, it is going to be an exciting time.

NEISMA is also looking forward to our annual Spring Conference, scheduled for Cape Cod, Mass. in late April. Once again, this promises to be an exciting show with plenty of social activities. As the winter is ending, NEISMA is continuing to put the final touches on the Spring Conference and has all the registration information listed on neisma.com for your convenience.

Once again, I ask that if you haven’t been to an ISI or NEISMA conference recently, please plan on attending one or both of them. Not only will you be making an investment in your professional education, but you can also connect with those attendees you haven’t seen in awhile. And who knows, you might actually learn a thing or two! Come and see and enjoy what New England has to offer!

```
ISI member are well-rounded individuals who put as much energy into their lives off the ice as they do on it. Each year, the ISIA Education Foundation awards scholarships to ISI skaters who have demonstrated a commitment to academics and service. You play an important role in publicizing this scholarship program and supporting your facility’s applicants. Here’s what you can do to encourage your skaters’ participation:

1. Assist your skaters with the application process.
2. Remind your high school seniors that the application deadline is March 1.
3. Write an evaluation or letter of recommendation, if asked.
4. Help skaters document their service hours.

For more information or to apply, go to skateisi.org/foundation or call (972) 735-8800
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### MARCH

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<td>Newark OH</td>
<td>Lou &amp; Gib Reese Ice Arena</td>
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<td>2015 Newark ISI Spring Open</td>
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<td>thru March 1</td>
<td>San Diego CA</td>
<td>San Diego Ice Arena</td>
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<td>6-8</td>
<td>Park Ridge IL</td>
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<td>Ice Breaker Classic</td>
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<td>6-8</td>
<td>Minneapolis MN</td>
<td>Parade Ice Garden</td>
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<td>SportsQuest Skating Academy-Parade</td>
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<td>Skate Parade</td>
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<td>Yonkers NY</td>
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<td>28th Annual Holiday Classic</td>
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<td>21-22</td>
<td>Sioux Falls SD</td>
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<td>27-29</td>
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<td>46th Annual Robert Unger ISI Team Competition</td>
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### APRIL

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<tr>
<td>10-12</td>
<td>Oxford OH</td>
<td>Goggin Ice Center</td>
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<td>ISI Synchronized Championships</td>
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<td>18-19</td>
<td>Pittsburgh PA</td>
<td>BladeRunners Ice Complex of Pittsburgh</td>
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<td>Golden Blades Championship of Pittsburgh</td>
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<td>2-3</td>
<td>Fairfax VA</td>
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<td>2015 Spring ISI Competition</td>
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<td>15-17</td>
<td>Farmers Branch TX</td>
<td>Dr. Pepper StarCenter-Farmers Branch</td>
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<td>Boxborough MA</td>
<td>Nashoba Valley Olympia</td>
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### JUNE

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<td>New York NY</td>
<td>Sky Rink @ Chelsea Piers</td>
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<td>29th Annual Sky Rink ISI Endorsed Team Competition</td>
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### JULY

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<tr>
<td>27-Aug. 1</td>
<td>Bensenville &amp;</td>
<td>Edge Ice Arena &amp; West Meadows Ice Arena</td>
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<td>Rolling Meadows IL</td>
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### OCTOBER

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<td>Raynham MA</td>
<td>Raynham IcePlex</td>
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<td>FMC William Chase Arena</td>
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<td>25th Annual ISI District 1 Championships</td>
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<td>McKinney TX</td>
<td>Dr Pepper StarCenter</td>
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<td>ISI Holiday Challenge</td>
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### SHOWS & EXHIBITIONS

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<td>thru March 1</td>
<td>Roseville CA</td>
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<td>Skatetown Exhibitions</td>
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<td>7-8</td>
<td>St. Louis MO</td>
<td>Wayne C. Kennedy Rec Complex</td>
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<td>Annual Ice Recital</td>
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<td>8</td>
<td>Salem MA</td>
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<td>Viking Skating Club</td>
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<td>Welcome to the British Invasion</td>
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<td>Luverne MN</td>
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<td>Ice Classics Monopoly-Ruby Edition</td>
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<td>Newark OH</td>
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<td>24-26</td>
<td>Park Ridge IL</td>
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<td>Heroes and Villains</td>
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<td>24-26</td>
<td>Franklin Park IL</td>
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<td>8-10</td>
<td>Northbrook IL</td>
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<td>28</td>
<td>Flushing NY</td>
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<td>World Ice Arena</td>
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<td>6th Annual Show: Alice in Wonderland</td>
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Take the Hassle Out of Managing Your ISI Competitions!

**Competition season is here, along with its countless hours of preparation and mountains of paperwork. Help is available with a software package designed specifically for ISI competitions.**

**Here's what The Edge Competition Management Software can do for you:**

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- Full-featured editing for arranging skating order, event order, age and gender grouping.
- Update all start times and event numbers automatically when schedule changes.
- Offer 14 user-definable sections for specialty items such as on-ice awards, special exhibition performances, etc.
- Assign judges based on their certification level.
- Automatically organize and print event judging forms based on The ISI Handbook.
- Provide complete accounting system for judge scores, event placement and team standings.
- Create a competition program book with names of skaters, teams, judges, schedule, text, ads, etc.

Send questions to TheEdgeCMS@skateisi.org. To order: (972) 735-8800 or orders@skateisi.org

**NEW Tablet Judging Now Available**

EDGE Competition Software 9.2 features our new tablet judging system, meeting expectations for the technology and professionalism used at other major sporting events. Tablet judging helps eliminate human data entry errors, speeds up results posting and offers automatic scratch/addition updates, among other benefits.
My first recollection of ice arena air quality becoming an “issue” was an article published in the Wall Street Journal about an incident that occurred in Seattle in May 1971. The article was extensive and very critical of the industry, implying that all ice arenas had a serious air pollution problem.

As the annual ISIA Conference & Trade Show was just around the corner, a special session on air quality, led by the owner of the arena in question, was quickly added to the conference agenda. The incident was discussed at length, including causes and remedies, with a transcript of the entire meeting documented in the conference proceedings, which were distributed to the entire ISIA membership.

Later that year, an article by Darrell Anderson of the Minnesota Department of Health titled “Problems Created for Minnesota Ice Arenas by Resurfacer Engine Exhaust” was published in the journal of the American Industrial Hygiene Association. Since that time, dozens of other articles and educational seminars have been written and presented on the subject of air quality. Unfortunately, there have also been dozens of additional indoor air quality incidents and, consequently, many unflattering reports about them in the media.

However, over the past 30 years or so, dramatic advancements have been made in ice maintenance equipment and air quality monitoring devices along with enhanced discussion and education on the subject as well as legislated air quality regulations in the states of Minnesota, Massachusetts and Rhode Island, with more on the way. The Summer 2011 issue of the ISI EDGE magazine contained an article titled “Let’s Clear the Air,” outlining responsible practices and practical solutions for air quality management.

So why is it that, year after year, we continue to have air quality incidents, which not only reflect poorly on our industry, but also frighten and endanger the very customers whom we rely on or are trying to attract to grow our sports and businesses?

The answer is simple. It’s human error, lack of knowledge or, even worse, indifference. Until arena owners and managers recognize and accept that air quality monitoring and maintenance are their responsibility and vital day-to-day functions in their arena — not just somebody else’s — or until we have indoor air quality legislation on the books in every state (with stringent fines and penalties for noncompliance), we will continue to suffer “black eyes” from a few uneducated or indifferent operators each year.

As in any industry, it is our responsibility to make every effort to provide safe, clean and healthy facilities for our patrons. After all, poisoning our customers probably isn’t so good for business! 😞
Now you can conveniently earn your iAIM certifications while attending annual ISI conferences. iAIM students can also attend general conference sessions and activities in addition to their required certification classes, offering a comprehensive professional development event.

iAIM’s Management, Operations, Programming and Skating Director courses equip students with the education and confidence to successfully face real-world challenges encountered on the job.

Since 2001, industry professionals have earned 650 iAIM certifications. Join the hundreds of people who have gained a competitive advantage in the workplace and made themselves more valuable to their facilities through iAIM certification.

CAM, CAO and CAP are presented in three segments, with full certification earned in three years.

*CSD is offered in its entirety each year.
From the locker room to the arena, Mondo can stand up to the abuse.