



## Football Ticket Drawings!

This special contest is for either Redskins or Ravens tickets --- you get to choose! We're offering two tickets to either the Tampa Bay Buccaneers playing the Redskins on December 12th, or the New Orleans Saints against the Ravens on December 19th. To enter, please email us at [contest@arcwater.com](mailto:contest@arcwater.com) with your name, employer, phone number, and choice of game. Alternatively, you may go to our web site and complete the Contest Entry form at the top left of <http://www.arcwater.com/>. We encourage you to recruit additional entries from your firm or others in your industry, but please only one entry per person. All entries must be sent in by COB, Tuesday November 30th, 2010.

## ARC OFFERS MORE GREEN SOLUTIONS

Traditional water treatment involves transporting liquid chemicals to customers' sites, and these chemicals often contain a large portion of water. This has required shipping large volumes from the chemical manufacturer to the water treatment specialist, who then may add other chemicals to create their special treatment formulations. These may be mixed in large tanks and then poured off into smaller containers for final transport to the HVAC systems being serviced. The "green movement" has made an issue of this approach, in that it involves "inefficient transport" of chemicals leading to waste of fossil fuels, when they believe there are more efficient uses of energy.

The water treatment industry has developed a response to this critique, which is referred to as the "solid chemical" solution, and Arc Water Treatment has recently installed the first treatment system for a customer. Working with our national distributor, Metro Group, Inc. of Long Island City, NY, we have designed a dual-chemical treatment system for a new Harris Teeter store in Washington, DC. This system has solid chemicals for protecting the evaporative towers, including both a scale/corrosion inhibitor and a biocide.

The chemicals are delivered as solids in 1-gallon containers, saving energy in transport. These containers are installed along with a mixing system that dissolves the solid into a small mixing tank (1-gallon in volume), and then the dissolved chemicals can be injected by pumps into the water circulating in the evaporative tower. This system is run under the control of a traditional conductivity control panel (manufactured by Pulsafeeder) which monitors the cycles of concentration and regulates both bleedoff of tower water and injection of treatment chemicals.

Harris Teeter has had good experience with these systems in other locations in the Southeast, and we look forward to working with them to ensure this new treatment system works reliably. Of course we'll be monitoring it closely during our monthly visits, and will be supplying replacement chemicals as each "solid jug" is used up. Due to the plumbing and mixing system requirements, the initial investment in chemical treatment equipment is slightly higher than traditional chemical feeding equipment, but the indirect savings in energy and chemical handling costs should pay off for years to come.

## ARC HELPS THE CONSTRUCTION INDUSTRY

Arc Water Treatment values its close relationships with many Mechanical Contractors (MC's) and Consulting Engineers (CE's) throughout the Baltimore/Washington DC region. We have successfully supplied equipment and services for new HVAC systems at the numerous buildings the MC's are hired to construct. We want to thank them for their business and recognize many of the new landmarks in our region, with the (MC's/CE's) listed below each:

425 Eye Street  
Washington, DC  
(W.E. Bowers/SmithGroup)

1200 East/West Hwy  
Silver Spring, MD  
(Design Build/KTA)

AAMC Acute Care Pavillion  
Annapolis, MD  
(Southern Mechanical/James Posey)

Andrews AFB Visiting HQ  
Andrews AFB, MD  
(Martin J. Braun)

Annapolis Rec. Center  
Annapolis, MD  
(Blue Dot/Schlenger/Pitz)

Army National Guard Readiness Center  
Arlington, VA  
(W.E. Bowers/CH2MHIL)

Calvert Hall College HS  
Baltimore, MD  
(Calvert Plumbing/ Schlenger/Pitz)

Church of Scientology  
Washington, DC  
(R&R Mechanical/Genster)

Constitution Square Bldg. II  
Washington, DC  
(W.E. Bowers/GHT)

Deanwood Community Center  
Washington, DC  
(Powermax/Golden)

Dept. of Employment Services  
Washington, DC  
(Powermax/Bansal)

Eleventh High School  
Nokesville, VA  
(Ronco/Moseley)

Maryland Square II  
College Park, MD  
(W.E. Bowers/TAI)

National Gateway Buildings A&B  
Alexandria, VA  
(W.E. Bowers/Allen&Shariff)

Somerset County Office Complex  
Princess Anne, MD  
(Wilfre Company/Gipe Assoc.)

St. Luke Lutheran Church  
Silver Spring, MD  
(Shapiro & Duncan)

Thomas A. Edison HS  
Alexandria, VA  
(Acme Mechanical/Brinjac)

UMES Wicomico Hall  
Princess Anne, MD  
(Austin Cox Mechanical/Gipe)

Several Secure Data Centers  
Chantilly/Manassa, VA  
(W.E. Bowers)

Yorktown HS  
Arlington, VA  
(Shapiro & Duncan/GHT)

Pre-Sorted Standard  
U.S. Postage  
PAID  
Permit #48  
MERRIFIELD, VA



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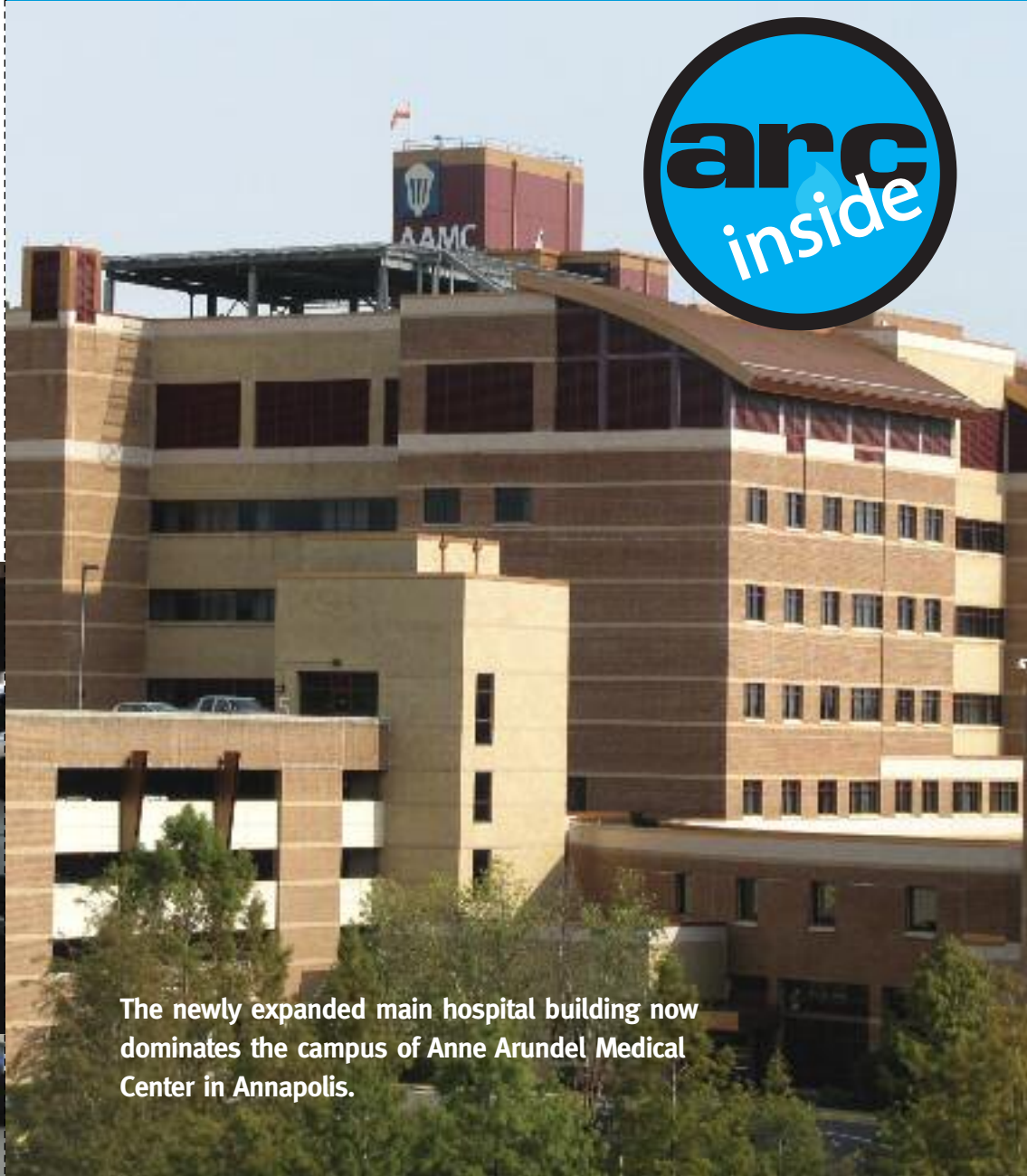
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waterworks

waterworks

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The newly expanded main hospital building now dominates the campus of Anne Arundel Medical Center in Annapolis.

The Region's Premier Water Treatment Company



ARC's FACEBOOK PAGE  
CHECK US OUT ON FACEBOOK AT "ARC WATER TREATMENT COMPANY OF MARYLAND".



Eric Hagen and David Hollingsworth visited many of our suppliers at the recent AWT Convention.

## ARC WELCOMES NEW CUSTOMERS

Arc is pleased to have signed up many new customers over the last few months. Some of these distinctive properties include:

- 21 Crossroads  
Owings Mills, MD  
[Flo-Tron](#)
- 10320 Patuxent Pkwy  
Columbia, MD  
[CB Richard Ellis](#)
- Carey Luman Bldg.  
Baltimore, MD  
[Gilman School](#)
- COPT Westbranch  
McLean, VA  
[Corporate Office Properties Trust](#)
- Doubletree @ Colonnade  
Baltimore, MD  
[Doubletree Hotels](#)
- Emerson III  
Laurel, MD  
[HavTech](#)
- GMU – RAC Building  
Fairfax, VA  
[George Mason University](#)
- Idaho Terrace  
Washington, DC  
[Vista Management](#)
- Liberty Christian School  
Owings Mills, MD
- Marina Towers  
Alexandria, VA
- Marylander Condo  
Adelphi, MD
- Merrill House  
The Latrobe  
The Stafford  
Towers at Westchester Park  
Village Oaks  
Fairfax, VA  
College Park & Catonsville, MD  
[B&B Technologies](#)
- The NY Ave. Presbyterian Church  
Washington, DC
- Queenstown Apartments  
Mount Ranier, MD  
[AMS](#)
- The Riviera of Chevy Chase  
Chevy Chase, MD
- Rock Creek Terrace Apartments  
Rockville, MD  
[AMS](#)
- Station Place III  
Washington, DC  
[Louis Dreyfus](#)
- Stratford University  
Woodbridge, VA  
[PMB, LLC](#)
- The Warwick Apartments  
Silver Spring, MD  
[Vista Management](#)
- White Oak Gardens  
Silver Spring, MD  
[Case Management](#)
- University of Baltimore – Lab Bldg  
Baltimore, MD  
[Knott Mechanical](#)

## FEATURED CUSTOMERS



### Anne Arundel Medical Center

The Anne Arundel Medical Center has been growing tremendously since relocating from downtown Annapolis to its Medical Park campus between Route 50 and the Annapolis Mall. Arc Water Treatment has grown with AAMC as they've added buildings to the campus and expanded their medical services to the community.

Beginning with outpatient clinics in 1989, two major pavilions were constructed in 1995. The main hospital (Acute Care Pavilion) opened in 2001, the Sajak Pavilion was also completed that year. The Health Sciences Pavilion was built in 2009, forming a West Campus. An expansion of the ACP is well underway towards completion in 2011. AAMC now has more than 3,000 employees, making it the third largest private sector employer in Anne Arundel County.

Arc Water Treatment provides a variety of water treatment services to most of the buildings on the Medical Park campus of AAMC. We are retained not only by AAMC directly, but also by Cassidy Turley who provides the mechanical services at three of the Pavilions, and also by Southern Mechanical, who is helping build the expansion to the main hospital (ACP). Our services include treating several cooling towers, protecting closed loop systems for heating and cooling, and providing chemicals to protect several steam boilers. We also perform regular tests for Legionella bacteria on all cooling towers throughout the campus.

AAMC has made a "green commitment" in the recent construction of the Health Sciences Pavilion (HSP) and the ACP expansion, adopting recommended practices of the US Green Building Council towards achieving LEED certification. This led to design engineers specifying non-chemical treatment for the new cooling towers. Arc Water Treatment has been retained by AAMC to monitor the performance of the non-chemical devices at the HSP, as well as help AAMC monitor the tower water usage, a significant step towards earning more LEED points. We are pleased to be closely involved with this new technology, but even more importantly to have the confidence of AAMC engineers that together we will ensure their systems operate most efficiently.

Tim Moran, Senior Service Technician is completing the startup of the water treatment system for the steam boilers at AAMC's Acute Care Pavilion.

*arc is going places*

## ARC HELPS DEVELOP GREEN INDUSTRY STANDARDS

The Association of Water Technologies (AWT), the industry association of independent water treatment companies, has spent much of 2010 developing a position paper on green technologies impacting water treatment, particularly for cooling towers. There have been some misconceptions that being "green" means avoiding chemicals or implementing treatment procedures with unproven methodologies, such as some of those getting recognized with "LEED points" towards green building certification by the U.S. Green Building Council (USGBC).

A Green Task Force was formed by AWT, and Arc Water Treatment has been an active participant in this effort. Through regular meetings, this group developed a position paper (summarized below). The goal is to work with the USGBC when they update their standards, to recognize the best practices of the water treatment industry as they would be applied to water management and treatment for cooling towers. Arc Water Treatment and others have also been gathering information from select customer sites that are "LEED Certified" to further determine whether (or not) non-chemical treatment methodologies protect cooling towers, and to assist in collecting water usage data.

Excerpts from the AWT Green Best Practices document are printed below:

### "Intent

To minimize the carbon-footprint, water usage and environmental impact of HVAC cooling systems and process cooling systems, generally by optimizing the control of water chemistry, and specifically by:

- minimizing water usage, including using non-potable makeup water where available;
- maximizing energy efficiency through maintaining clean heat-transfer surfaces;
- extending the life cycle of equipment by controlling corrosion and mechanical deterioration of materials;
- reducing carbon footprint of facilities personnel by integrating cooling water data mining into building management systems;
- and favoring materials and processes friendly to the environment and operator safety

### "Environmental Issues

Water-cooled systems utilize the natural cooling effect from evaporation of water to remove heat from buildings or processes. Proper stewardship minimizes water consumption while maximizing energy efficiency in the cooling of the building or process. Water-cooled systems are more energy efficient than alternatives, such as air-cooled, consequently requiring less electricity in their operation. Water usage in cooling tower systems consists of three types: evaporation, bleed-off, and losses. Evaporation is the principal mode of cooling and is both intended and desirable. Bleed-off is necessary to avoid excessive buildup of minerals and other solids that enter the system. In minimizing bleed-off, it must be controlled in conjunction with the water treatment program so that the minerals and solids do not precipitate and deposit in the system. The control parameter recommended is conductivity, and that parameter should be used to control the amount of bleed-off by use of an automated bleed controller. Using a constant bleed-off rate or periodic manual bleed is not recommended, as this practice wastes water and may compromise the useful life of the equipment.

Losses are largely avoidable if facility staff are trained to identify them. Proper maintenance can reduce problems with overflowing basin, leaking seals, splash out onto surrounding areas, excessive drift, and back-flooding. Staff should also be trained to inspect and adjust ball float valves periodically, check drain valves for proper closure and sealing. Improper pipe configurations, especially in systems that have undergone many additions, are common sources of large, unseen losses. Environmentally sound best practices call for constant attention to water losses, not just from cooling tower systems, but from all water systems in the facility.

### "Water Chemistry and Biological Control

Engage a qualified water management professional to design and administer a best practices water management program that meets water conservation and other environmental objectives. Controlling mineral scales, biological deposits, foulants and corrosion through the appropriate use of filtration equipment and treatment products helps maintain water system cleanliness, hygiene,



Eric Hagen with fellow PMA Operations Council at the PMA Maintenance Summit.

and efficiency, as well as minimizing microbial growth. Mineral content is typically managed through a combination of bleedoff and appropriate additives that prevent precipitation of dissolved solids. Effective water management maintains heat transfer efficiency and reduces the need for bleed-off, thereby conserving both energy and water.

Select a water management provider capable of delivering best overall value in terms of water conservation and total water management operating cost. A professional water management consultant should be capable of utilizing the data collection tools of the controller to routinely adjust program parameters to effectively promote water, chemical, and energy conservation."

The complete paper can be found at [www.arcwater.com/HTML/news.html](http://www.arcwater.com/HTML/news.html)



## EMPLOYEE MILESTONES

Arc recognizes several individuals who have provided dedicated service to our customers. We greatly appreciate their efforts and continued commitment to excellence.

David Goldstein	President	30 Years
Eric Hagen	VP – Sales	22 Years
Tim Moran	Service Technician	15 Years
Scott Brengle	Service Manager	14 Years
Willie Bailey	Service Technician	12 Years
Bob Whitcomb	VP & Controller	12 Years
Bibi Perrotte-Foston	Correspondence	11 Years
Sophia Zhang	Bookkeeper	7 Years
Gloria Wade	Contracts Administrator	7 Years
James Graham	Service Technician	5 Years
John (JP) Grimes	Service Technician	2 Years

## PICNIC

The Arc Water Treatment Service Team treats the entire company to a picnic in mid-October at the end of our busy season. They shuck raw oysters, steam fresh shrimp, and cook roast beef, ham, and turkey on the BBQ. All employees join in this celebration, held outside one of our warehouses. Chefs Scott Brengle and JP Grimes appear relaxed after everyone is fed.

