



THE END POINT

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Premier Water & Energy Technology, Inc.

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Message from the President

Change and Opportunities

Tom Brandvold
President

Spring has come and gone and Summer is fast approaching. It always seems this time of year brings questions about where the time goes and "is school out already?"

At Premier, this is an especially busy time of year as we prepare for the cooling season and lay plans for the start of our fiscal year, beginning June 1st.

There will be a number of significant water treatment related events you will be hearing about through the summer. Premier will also be announcing several initiatives over the course of the year designed to provide our customers with opportunities to save money, conserve water, and stay ahead of the ever-changing regulatory landscape.

As a preview, you can expect to see more from Premier in the way of Reverse Osmosis as a feedwater strategy. For years RO has been employed in large, high-pressure boilers. We are developing an offering that makes economic sense for smaller package boilers. Fuel and water savings will be significant compared to water softeners.

Solid treatments and treatment systems will also be an emphasis for us. The convenience, safety and handling efficiencies that accrue to users of this technology have become compelling. Finally, expect to see and hear more about water quality, especially as it relates to water borne pathogens like Legionella. We expect ASHRAE, in conjunction with the CDC, to announce some sweeping changes to the way water is looked at as it travels through your facility. Bill Cronin and Julie Edwards will be leading these initiatives and would be happy to share more details with you at your convenience.

If you haven't already heard or seen, we are continuing to grow Premier Plumbing. We have some events planned in

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FHEA Tradeshow


Michelle East
Marketing Team

Susan Brooks, Michelle East, Chuck Brandvold and Bob Downey represented Premier at the Annual Florida Healthcare Engineering Association (FHEA) Tradeshow in Orlando.



FHEA is an association that promotes the professional role of healthcare engineers throughout Florida by providing professional growth opportunities, training and education to its members. Premier's main focus at the trade show was Water Safety.


ASHRAE is developing a new Standard to address potential hazards in facility water systems. In order to stay ahead of the standard, Premier has developed a Water Safety Analysis report that will:

- Identify and analyze the current conditions in both potable and utility water systems,
- Analyze the residual oxidant levels (free chlorine) throughout a system,
- Develop a summary report of the findings, including preventative measures and guidelines. 

To learn more about Premier's Water Safety plan and to get prepared for the new ASHRAE Standard please contact Julie Edwards at jedwards@premierwater.com.

Premier Faces and Places

Sherri Dernick

As you may already know there is a new voice answering our phones at Premier. Sherri Dernick is our newest team member and is a very welcome addition to our office. Sherri has recently moved here from California. Please say hello to her the next time you call and welcome her to the area. 

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conjunction with the Jacksonville Suns, so if you are at a game this season, be on the look out. And, if we can help you with any commercial or residential plumbing projects let your Water Treatment Consultant know.



As always we thank you for allowing us the privilege of being your Water Treatment partner and look forward to assisting you in any water related matters you face. ☺

Boiler Blowdown

Best Practices

Bill Cronin
Technical Manager

Blowdown of steam boilers is often a highly neglected aspect of routine boiler maintenance. With even the best pretreatment programs, periodic blowdowns are required for optimum boiler performance. The blowdown process involves partially draining the boiler to remove the suspended and/or dissolved solids in the water followed by the addition of fresh feedwater.



Boiler water carryover into the steam and scale formation can result from insufficient blowdown, while excessive blowdown wastes energy, water and treatment products. Proper blowdown rates depend on boiler type, pressure, feedwater quality and treatment programs. Specific Conductance, also referred to as Conductivity, is the measure of a water's ability to conduct electricity. Conductivity correlates to the Total Dissolved Solids (TDS) in a system and is the typical means for controlling boiler blowdown. TDS can be estimated by multiplying the unneutralized conductivity by 0.65. For actual values, an empirical calculation would need to be done based on the composition of the boiler water dissolved solids. The normal range for the amount of blowdown as a percentage of boiler feedwater is between 4-8%. It can be calculated by dividing the cycles of concentration into 100. The cycles of concentration can be determined by dividing the conductivity of the boiler water by the feedwater conductivity.

There are basically two types of boiler blowdowns - continuous (also referred to as "surface blow") and manual (otherwise known as "bottom blow"). The continuous blowdown utilizes a calibrated valve with a blowdown tap near the boiler water surface. As the name implies, it continuously takes water from the top of the boiler at a predetermined rate. Advances in continuous blowdown equipment include automated controllers with actuated valves for very tight control of conductivity.

American Boiler Manufacturers Association (ABMA) has reported maximum recommended concentration limits for TDS, Alkalinity, and TSS

Boiler Operating Pressure (psig)	Total Dissolved Solids (TDS) (ppm)	Total Alkalinity (ppm)	Total Suspended Solids (ppm)
0 - 50	2500	500	
50 - 300	3500	700	15
300 - 450	3000	600	10
450 - 600	2500	500	8
600 - 750	1000	200	3
750 - 900	750	150	2
900 - 1000	625	125	1

Manual blowdowns are accomplished through one or more openings at the bottom of a boiler. These openings allow for the removal of solids that settle to the bottom of the boiler. The amount of the solids that settle as well as the length of time the bottom blow valve should be opened is dependent of treatment program and feedwater quality. Typically, 3 to 8 seconds per shift per valve is sufficient for removing the solids. A manual blowdown is also used to keep water level control devices and cutoffs free of any solids that could interfere with their operation. During these blowdowns, care should be taken to prevent low water shutdown. One final note is that it's good practice for all blowdown piping to be inspected regularly for obstructions. ☺

Trivia Question

Can you find the answer to the following question in this edition of The End Point?

Name 3 things you can do to help your lawn survive through the summer.

Fax your answer for Website Trivia to 904-268-6851, or you can email your response tstaples@premierwater.com. All responses received by June 30th will be entered in a drawing to win a prize. Be sure to include Your Name, Company, Phone Number, and an answer to the question. Please reference June Trivia Question on your fax. ☺

St. Augustine Grass

Summer Time Care

Doug Leinenwever
WTC (and Lawn Expert!)

Now that summer is upon us keep in mind your St Augustine grass is under the same stresses we are. The high temperatures and pounding sunlight affect your lawn as well. Keep these items in mind when maintaining your lawn this summer, and it will thank you.

2. The first and easiest step in keeping a healthy and green lawn is to be sure it receives 3/4 to 1" of water every week. This is best done in early morning or evenings. Be sure to check your irrigation if it is set up at these times to make sure it is hitting your desired locations. If the irrigation is found to need adjusting, not only is your lawn not receiving the water it needs, but you may be wasting precious water on the street or sidewalk. When the blade looks curled or wilted watering is needed.



3. There is some debate on the addition of fertilizer in the summer. I personally have had success adding fertilizer in the early summer and using a fertilizer with a lower amount of slow release nitrogen and try to apply before the weather is in the 90's regularly. In Florida this can be May, so don't waste any time. The combination of heat and fertilizer can cause undo stress to the grass. Always water the lawn thoroughly after the addition of any fertilizer, pest control etc.
4. In the warmer months I have my mower set as high as it will go. There are recommendations of cutting St Augustine grass 4" high. St Augustine grass has an erect and stiff blade and grows evenly, leaving a great looking lawn after, between and before the next mowing even with the longer blades. This 4" canopy helps the plant tolerate the warm and dry summer.
5. Keep your mower blade sharp! If watering your lawn is the first step in keeping a healthy green lawn, a sharp mower blade is the second step. This is overlooked by most, but very important. Dull blades "tear" or leave a ragged cut leaving the door

open for diseases to infiltrate your lawn. After a cut the blade should be crisp and not frayed. The tips will become brown and give the appearance of a brown lawn even if the plants are healthy and green.

1. Mulch your lawn, even if you don't have a mulching mower, don't bag the clippings. The clippings have nutrients beneficial for your lawn. Remember the blades of the grass should never be cut more than 25%. This is unhealthy for the grass, and can put it under stress. The hot summers provide enough stress without doing anything else to add additional stress.

Giving your lawn this extra attention will keep it and you happy allowing you to spend your extra time enjoying your lawn. ☞

Cooling Tower Reminder

Keep it Clean

Rodney Christ
Water Treatment Consultant

With the higher cooling loads of the summer cooling season fast approaching, it is very important to keep your cooling tower clean and free of debris. The most important reason for this is to maintain the efficiency of your tower. If your cooling tower is suffering from restricted air flow, it will cost more money to cool the same water. Under normal operating conditions you will have dirt, sand and debris build up in your cooling tower basins and evaporative salts build up on your fill media. Together these conditions will greatly reduce the efficiency of your cooling tower. We recommend that you clean your cooling tower at least twice a year. The benefit of keeping your cooling tower clean is the elimination of many potential problems and improved efficiency. ☞



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