

CAT Controller Courier # 26

November 2008

Dear CAT Customers,

CAT would like to thank everyone who participated in the 2008 October Special. CAT Controllers understands how difficult times are right now regarding our country's economic status. However, we do appreciate the fact that most of you were able to take advantage of much needed savings. Save now and profit later is how we need to think when reviewing promotions. If you missed this year's October Special please don't be discouraged. CAT will be offering another great promotion in January for Early Buy so that you can be prepared for a NEW and PROFITABLE 2009 Spring Season. CAT wants to thank you again and wish all of you a happy and safe start to the holiday season.

Stray Current In The Water? How and Why Does This Affect My Controller?

First off let me start by saying; I, Troy McGinty, am not an electrician. However, through my years at CAT Controllers I have experienced some incidents where chemical readings displayed by an automated chemical controller are affected by stray electrical current within a body of water. ORP is measured in millivolts (mV): a unit of potential equal to one thousandth of a volt. We all know that a volt is a measurement of electrical current, in Layman's terms. With this in mind, when sensing ORP we are sensing a small, very small, electrical current generated when a metal (or in our case an ORP Sensor) is placed in water with the presence of oxidizing agents (Chlorine or Bromine). These voltages give us a signal regarding the ability of the oxidizers presence in the water to keep it free of contaminants. Okay, now that we have the science out of the way let's talk about the effect that stray electrical current may have on the controller. When speaking about stray current in the water remember I am not talking about high voltage current I am referring to electrical noise. Electrical noise is unwanted currents or voltages in an electrical system that can affect the operation and outcome of other electrical systems used to communicate or process information correctly. (Answers.com, Sci-Tech Encyclopedia, 2008). Here are some components in a pool that are frequently known to give off electrical noise:

- Motors/Pumps
- Heaters
- Jet Pumps
- Salt Chlorine Generation Systems
- Power source the controller is plugged into (GFCI)
- U.V. Systems
- Ozone Systems
- Florescent light systems or the lights themselves

Alright now that we know what can cause this stray current or electrical noise in our systems, how can we determine if it is affecting your system? If you stand in front of your controller and watch the ORP read-out closely and it fluctuates frequently and fairly dramatically up and down 20 to 50 mV within 30 to 60 seconds, you may have some stray current. How do we determine it is not a controller or probe failure? Remove the probes from the flowcell (keeping the probes BNC connections at the controller connected and the controller powered on) and place them into a beaker/cup of the same pool water you are sampling. This allows you to isolate the probes from the rest of the circulation system and its components, while at the same time sensing the same water with the same chemical makeup and residuals. Again, watch the ORP read-out closely, if the readings level out and stay quite steady we know that the problem lies within the pool or its circulation system. If the fluctuating readings persist while the probes are isolated, more than likely we have a problem with the probes.

If you have stray current or electrical noise in your water you can try and determine its source by taking the following steps: Start by turning all system components on (lights, heater, pumps, jets, etc.) start watching the ORP display with the probes in the flowcell as normal, one by one turn each component off (leaving the circulation pump for last). Then make sure to give yourself 60 seconds to watch the ORP reading to decide if it is fluctuating or not between each component shut off. If it stops fluctuating when you turn a specific component off, most likely that is the culprit. If that doesn't work, try plugging the controller into a different power source and watching to see if ORP fluctuations cease. The current GFCI you are using may be giving the controller stray current or electrical noise that is effecting its display. Once and/or if you discover which component is causing the problem, it may be time to contact a licensed electrician to come into your facility and make sure everything is bonded and grounded properly.

If you have discovered that it is a controller or probe issue, contact CAT Controllers, Inc. immediately so that we can help you to solve the problem. Please note that fluctuating ORP can occur without the presence of stray current or noise. Please be sure to contact CAT with any questions and/or concerns. Well I hope this article has been helpful and good luck with your trouble shooting adventures.

Written By:
Troy McGinty
CAT Controllers, Inc.

Financing Made Easier by Global Vantage, Ltd.

"Global Vantage is one of CAT Controllers' preferred finance companies that understand our customer base and the product that we offer to the swimming pool industry. Please feel free to contact Troy McGinty for some more information and a credit application." MTM.

At Global Vantage Ltd., we've been specializing in helping facilitate acquisitions of capital equipment for business owners since 1992. As a AAA rated company with the Better Business Bureau, Global Vantage specializes in custom funding solutions to meet the unique needs of each business. Our experience includes funding for a variety of industries and we have found a strong role in the Chemical Pool Control industry working with equipment vendors like CAT Controllers.

We offer direct financing and work with multiple syndication partners to custom tailor a lease program to meet the needs of every client. We offer a variety of programs from fair market value leases with a return option, 10% options at the end of the lease, your typical \$1 dollar buy-out and even step or deferred payments up to 6 months. With over 200 years of combined experience at Global Vantage, we were able to provide our clients multiple financing programs to get their deals done!

For more information, please contact Albert Rojan directly at 866-207-8999 ext.106 or email him at arojan@globalfinancegroup.com

Benefits to Lease Financing For Our Customers

In everyday business company finances differ and can make going forward with new business difficult. With lease financing becoming more available and interest rates lower than usual, lease financing your equipment can make gaining a profit quicker and less stressful. Here are just some of the benefits of lease financing:

- Helps you overcome the need to provide up front capital.
- Helps your clients overcome "Sticker Shock"
- Helps your ability to sell more products.
- Helps protect your margins.
- Helps you compete with lower pricing.
- Makes it easier to lease to your clients.

These are just some of the benefits of lease financing. The season is about to begin and the time to take on stock is now, for ALL equipment, not just controllers. Please contact CAT Controllers for more lease finance information and contacts.

Start your own Water Quality Management Program by using lease financing to make money within the first month of operation. Email Troy to find out how: mtmcginty@chemauto.com

CAT Training Dates

Friday November 14, 2008 (Dealer)

POOL SPA EXPO Las Vegas, NV November 17th 2008 (Dealer)

Thursday December 11, 2008 (CPO Fusion)

Friday December 12, 2008 (Dealer)

FREE Las Vegas CAT Training

CAT Controllers will be providing a FREE full day of CAT controller training at the Holiday Inn Express Las Vegas South on November 17th, 2008 from 9:00am until 5:00pm. Just click on the picture above for the hotel contact information. CAT will be training on the entire CAT Product Line of Automated Chemical Controllers, the Poolcomm Website, and new Industry Trends. Lunch will be catered and provided by CAT Controllers. Please join us at this educational event prior to the National Pool and Spa Expo. For more information or to reserve your spot contact Troy McGinty at 1-800-657-2287 or email your reservation. We hope to see you there!

Email Troy MCGinty To Reserve Your Spot NOW! mtmcginty@chemauto.com

I hope you enjoyed the November Newsletter. If you have any questions, concerns, and/or ideas please contact me at the information listed below. Please be sure to comment on my articles or to email me with any suggestions for future topics. Thanks for reading.

Sincerely,

Troy McGinty

CAT Controllers, Inc.

1-800-657-2287

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