

## 2Q/2014 Newsletter

### Tips for the maintenance and operation of your water reclaim system

Water reclaim is becoming increasingly important due to population growth, drought, and the scarcity of fresh water. More and more companies are learning how to reclaim their process water and have had success by understanding the equipment and their water recovery goals. These are the people that are not only being environmentally responsible but are saving money in the process. Successful water recovery mainly relies on the equipment and technology required to bring the water back to the quality required. The problems that can occur with reclaiming water does made many skeptical in the industry, however most problems occur with the maintenance of the equipment. The following is some useful tips for proper operation and maintenance of water recovery equipment.

1. Follow equipment maintenance instructions such as:  
a) Take the five minutes per day and do the maintenance.  
b) Clearing an inlet strainer.  
c) Making sure that the pumps are operating properly.
2. Don't get overwhelmed by your system.
3. If the reclaim unit is not able to pump water, it cannot deliver it to the car-wash. The main function of any re-claim is to pump water through a filter and circulate the reservoir for pre-treatment. If it is not pumping water, it is typically not getting the water due to plumbing issues or inadequate water supply as well as other issues that can arise.
4. Treat the reclaim system the same way you treat other equipment at the wash and keep it clean and tidy.

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#### Maintenance Reminder.

**Small Leaks will become Big Leaks! – inspect and fix leaks in your operation..**

### How we do it



Assembly



Electrical Wiring



Test

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5. Follow the maintenance prompts provided by the touch screen/owner's manual for best results.
6. Periodically check the reclaim reservoir to make sure that it is full of water and not full of sediments.
7. Make sure the water can flow freely from the wash trough to the reclaim reservoir. If full of sediments have them removed to prevent from damaging pumps.
8. Periodically check the reclaim plumbing for blockage and make sure all lines are flowing properly.
9. When plumbing lines, use as few elbows as possible, these niches could become clogged over the years and be the source of pump seal loss due to inadequate water supply as well as other issues.
10. Pick a chemical line and stick with it. Mixing and matching chemicals from different vendors can wreak havoc on the reclaim reservoir pits.
11. Make sure that you are mixing your chemicals at the proper rate. Too much dressing, such as mineral seal oil and silicone, is an issue for all reclaim water. Chemical reactions that occur from mixing and matching and overuse of chemical make it very difficult to pre-treat the reclaim reservoir pits. Remember, what goes in is a direct result of what comes out.
12. Keep the introduction of grease, oil and foreign matter to a minimum into your reclaim pits. Your reclaim provider will give you ways to combat these issues, but it is difficult to hit a moving target if you are not consistent with your chemicals
13. It is a good idea to dam off any silicone based products from the reclaim reservoir pits.
14. In order to optimize your reclaim water quality and use, you should experiment with your chemicals and use as little as possible to get the clean car you are looking for.
15. The biggest mistakes we see are in the plumbing of the reclaim reservoir to the equipment room and the electrical service for the pump room. When the plumbing is done incorrectly it hampers the ability of the reclaim to operate on a consistent basis. This is a huge issue in the carwash industry and is the reason some owners have become disillusioned with reclaim systems over the years.
16. If you haven't yet installed a system, note that if the unit is plumbed correctly you will not have the issues down the road that lead one to blame the reclaim system for subpar performance. Do not skimp or cut corners on the plumbing of the re-claim system. Generally this plumbing is underground, make sure it is done right before being buried or paved over.
17. Most of the systems use centrifugal pumps to draw the water from the storage tanks and send to the wash process. This means that distance from the reservoir to the reclaim equipment is another point that seems to get overlooked or not considered when installing a reclaim system. This distance should be as short and as direct as possible between the two.
18. Operators need to make sure that the breakers and electrical lines are sized properly.
19. With the use of VFDs and PLCs in today's reclaims, it is imperative that the wire size is adequate for the length of run from the service panel to the unit, and that there are proper PE Grounds in the circuit. Crossing grounds, improper PE grounds, and pulling power sources from otherwise dedicated circuits are a huge problem that we see. This goes for all equipment involved, not just reclaim units.

Give us a call today, we can help in the design and installation of your reclaim system.

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### In The News....

#### Stage 2 water rationing does not include car wash restriction (Nicole Brambila's blog)

The Lubbock Water Department said, *Oops*. An A-J reader contacted us concerned about the city's overreach as officials outlined what is and is not permissible under Stage 2 restrictions, which kick in by the way on Sunday. We have reported, I have reported, that vehicles cannot be washed outside except at car-washing facilities and mobile units.

"The Ordinance in question (Section 22.08.079) has no language/wording allowing car washing only by commercial operations," RK Miller wrote me in an email.

Aubrey Spear, the director of the city's water resources, and I have had several conversations about this. And every time, Spear has asserted car washing was prohibited.

Until today.

"We actually need to clarify this," Spear told me. "We cannot tell people not to wash their cars at their house, but to significantly limit or refrain from doing so."

#### Florida Environmental Education at Con-Serv



### Reclaim Systems



I emailed City Attorney Mitch Satterwhite yesterday asking for clarification. Satterwhite referred me back to Spear.

Turns out this whole car washing thing isn't new. In May 2012 – while under Stage 2 water rationing – officials had to clarify the policy then laid out in city ordinances.

Spear said today that the drought restrictions and ordinances are reviewed every five years. This is year four.

"The way you find room for improvement is that you engage the ordinance," Spear said.

If I may, what he means is that oftentimes the muddy language in an ordinance or law is cleaned up after the fact. Spear would not say if the ordinance would be changed to prohibit car washing at its next review.

"Going through the process to change the ordinance takes time," Spear said. "It needs to say either you can or you can't."

Obviously, homeowners who wash their vehicles will not be cited.

Thanks, Miller, for keeping them honest and keeping me on my toes.



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### Jokes Corner

#### [The police chief is interviewing applicants for a detective job.](#)

The chief says to the three applicants "Alright, one of the most important things for a detective is to have good observational skills, so I'm going to give you all a little test. You'll each get a photo to examine for just five seconds, then you have to tell me what you notice about the subject's appearance."

The chief takes the first applicant into a room and gives him a photo from their mugshot gallery. After five seconds, he says "so what did you notice about the subject?"

Applicant #1 thinks for a bit and says "he only had one eye."

The chief looks at him in disbelief. "What? No, it's a picture in profile! You can't see the other eye because his head is turned sideways! What an idiot, get out of my station!" He bellows. Applicant #1 flees.

The second applicant comes in and the chief gives him the same photo. After five seconds, he barks "time's up, what did *you* notice about the subject?"

Applicant #2 hems and haws and finally says "he only had one ear!" The chief nearly flips the table. "It's a picture in profile, you brainless buffoon! You just can't see the other ear! Get out of my sight!" He roars. Applicant #2 takes off as well.

The third applicant enters tentatively. The chief slaps the photo down in front of him, and after five seconds he growls "Tell me anything you noticed about the subject!"

Without so much as a pause, applicant #3 says "He was wearing contact lenses."

The chief squints at the picture, but for the life of him he can't tell whether the guy is wearing contacts or not. So he goes and checks the records and sure enough, he wore contact lenses! The police chief comes back out beaming and says "you were right! What amazing powers of observation! You're hired, sign here and I'll go get your new badge."

So applicant #3 signs his name and the chief soon comes back with the badge. When he does, he shakes #3's hand and says "I'm curious, how could you tell he was wearing contact lenses? I couldn't tell at all!"

Applicant #3 smiles and says "Simple logic--he couldn't have worn regular glasses, since he only had one ear and one eye."

#### [Favorite Hockey Joke](#)

On a tour of Florida, the Pope took a couple of days off to visit the coast for some sightseeing. He was cruising along the beach in the Pope-mobile when there was a frantic commotion just off the shore.

A helpless man, wearing a Montreal Canadiens jersey, was struggling frantically to free himself from the jaws of a 25-foot shark.

As the Pope watched, horrified, a speedboat came racing up with three men wearing New York Rangers' jerseys aboard. One quickly fired a harpoon into the shark's side, while the other two reached out and pulled the bleeding, semiconscious Canadiens fan out of the water. Then, using baseball bats, the three heroes in blue beat the shark to death and hauled it into the boat as well.

Immediately the Pope shouted and summoned them to the beach. "I give you my blessing for your brave actions," he told them. "I heard that there was some bitter hatred between Rangers and Canadiens fans, but now I have seen with my own eyes that this is not the truth."

As the pope drove off, the harpooner asked his buddies "Who was that?" "It was the Pope," one replied. "He is in direct contact with God and has access to all of God's wisdom."

"Well," the harpooner said. "He may have access to God's wisdom, but he don't know nothing about shark fishing... How's the bait holding up?"