

ifm CURRENTS

CLEAN WATER FOR A CLEANER WORLD.

Now Offering –Design Request Forms! Available at www.ifmenviro.com

IFM WINS SAFETY AWARD

The Safety Award was presented to IFM at the One Water -Ohio AWWA-WEA Technical Conference & Expo held at the end of August.



IFM's MCCLURE LAB PASSES ALL MICROBIOLOGICAL PROFICIENCY AND WASTEWATER PROFICIENCY STUDIES ONCE AGAIN!

IFM is pleased to announce our McClure office has passed blind tests for all analytes run in-house for 15 consecutive years for wastewater and 5 Years for water!

The proficiency studies are blind tests that the IFM lab is required to participate in each year. Samples with unknown concentrations are sent to IFM, they are analyzed per our standard operating procedures, then submitted to the provider lab. The results are then graded with an acceptable or fail grade and reported to the OEPA.



Great job to all of our water and wastewater lab analysts Tori Plummer, Aaron Lucius, Michelle McKeen, Brittany Thome, not shown Jammie Flores, and Megan Shaw.

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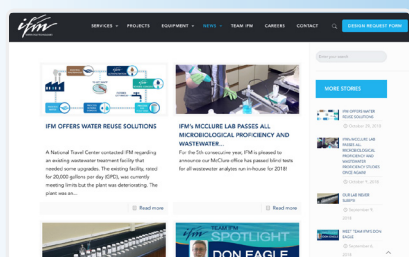
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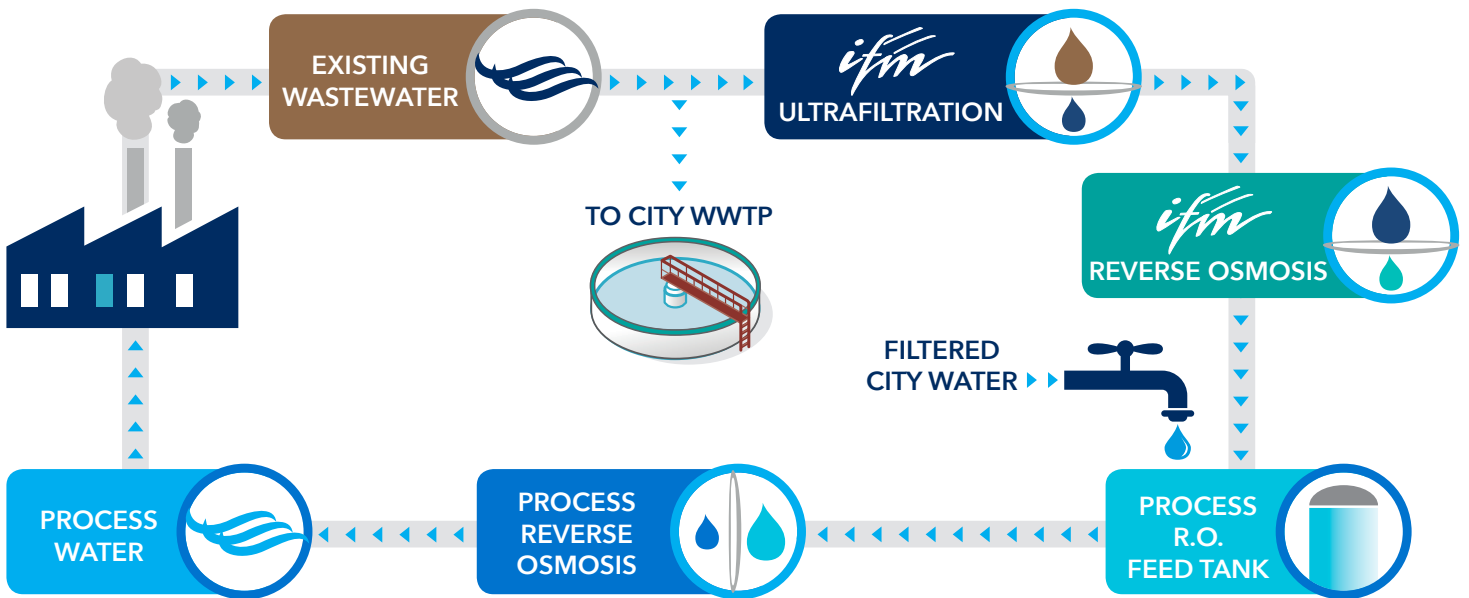


Check Out Our New Website

Our New Website is Designed to Improve and Enhance Your IFM Experience!

WATER REUSE

Let IFM Be Your Partner in Water Reuse & Recycling



Helping industrial and municipal clients
preserve and improve the world's most
vital natural resource: **water**

With many solutions available, IFM evaluates each client's needs to determine the right treatment and reuse solution. We then design custom water reuse/recycle systems and put them into action!

There has been a shift by many major industrial facilities to make water reuse a vital component to their normal operations. With the implementation of water reuse, facilities will lower their city water and sewer consumption as well as reduce the use of clean drinking water for manufacturing purposes.

These innovations are being implemented around the world, especially within automotive manufacturing. Many of these companies, with other industries, are part of the UN Global Compact CEO Water Mandate. Water Reuse within these facilities

typically takes the manufacturing wastewater stream and treats it sufficiently to make it the feed water for some other part of their production. In other words, they will be using water that has already been paid for. This will obviously reduce the incoming water consumption as well as limit the amount of water going down the drain.

IFM is technology neutral and can use a combination of devices to achieve the clients' needs. Ultrafiltration, Reverse Osmosis, Closed Circuit RO as well as more typical Alkaline Precipitation are some of the processes we design and build into a system. Industrial wastewater can be recycled on or off site depending on space constraints and budgetary considerations.

Whether you are attempting to minimize water use, maximize water reuse, or take a step closer to your water cycle goals, please call your water cycle expert at Industrial Fluid Management, Inc.

SOLUTIONS

2 HIGHLIGHTED > WATER REUSE PROJECTS



MAXIMIZE INDUSTRIAL WATER RECOVERY & OPTIMIZE COSTS!

WATER RECYCLING BENEFITS

Recycled and Reclaimed On-site

Reduce Fresh Water Discharge Costs

Increase Operational Efficiency

Reduce Wastewater Flows

Improve Production Capacity Due to Increase Availability of Clean Water

Provide Social Responsibility to Your Community- Positive Company Image

Increase Sustainability Efforts to Reduce Your Water Use Footprint

Help Reduce Water Scarcity

Reduce Wastewater Processing Limitations

New Water Reuse System Reduces Municipal Water & Sewer Charges & Usage for Major Automotive Plant



In Spring of 2018, IFM, Inc. completed a water reuse project for a major automobile manufacturing plant. IFM provided equipment, engineering, and project management services for the installation of a high-quality water reuse system. The existing pretreatment system feeding the local POTW utilized coagulation, flocculation, and hydroxide precipitation which was followed by a Lamella-style inclined plate clarifier to precipitate and collect dissolved metals and clarify total suspended solids from production streams.

DESIGN SOLUTION > In an effort to cut down on city water costs and achieve the highest quality of water to feed the paint shop RO system, a performance-based contract was stipulated for the design, installation, and operation of a brand new water reuse system. The idea behind this process was that the water reuse system would be paid for through the savings resulting from the lessened municipal water and sewer charges. Not only this, but the high-quality reuse water would then be

continued...

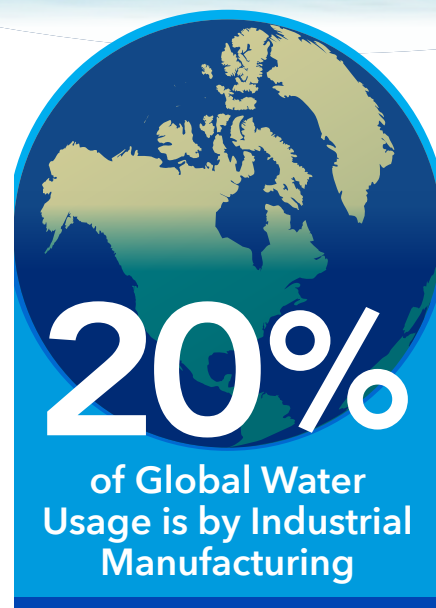
New Water Reuse System Continued...

sent to the facility's existing paint shop reverse osmosis (RO) system in lieu of filtered city water, adding yet another savings opportunity on both water and the replacement of carbon filters.

IFM, Inc. utilized an Ultrafiltration (UF) Membrane System. This piece of equipment further removed total suspended solids (TSS) from the clarifier effluent, as well as total organic carbon (TOC) via oxidation, coagulation, and membrane filtration. The design of this membrane system includes:

- A "dead-end" flow pattern in which the water rejected by the membranes is contained on the feed side, while the permeate stream is able to pass through the membrane surface.
- The system includes periodic back-flushes of the membrane, during which compressed air is fed to the permeate side of the membrane and allowed to percolate through the membrane fibers, removing any built-up solids, while simultaneously reversing the direction of the concentrated reject water, sending it directly to the drain.
- The UF System has three automatic operation modes: Production, Maintenance Clean, and Recovery Clean.
- Daily clean-in-place (CIP) sequences allow the membranes to remain in good operating condition and maintaining the desired flux rate while reducing down-time that would normally be required by a large-scale cleaning sequences.
- The system controls were integrated with the facility's House network to ensure automatic operation and data collection for trending.

Following the UF System, the filtered permeate was further clarified via RO before it was sent to the existing paint shop RO system. The RO that was utilized for this reuse system and offered between 95-98% rejection of dissolved minerals and organics due to their state-of-the-art sequencing technology. This RO technology facilitated a recovery of 90% of process water being fed to it. This extremely high-quality process water was then sent to the existing



paint shop RO system where it was put through the final stage of treatment before use in the paint shop.

Water reuse technology is more prevalent today than it has ever been. With the increasing costs of city water and sewer charges, companies are looking for a solution to gain the most out of every drop of water they purchase. With this new technology implemented, this vehicle assembly plant will be getting a second life out of their process water. With the multiple savings opportunities resulting from this system, the return-on-investment experienced by the plant is increased drastically.

If you are interested in a water reuse application or would like to receive expert advice on all of your water and wastewater quality needs, please contact Industrial Fluid Management, Inc. at (866) 435-4436.

QUICK ACTION RESOLVES AN URGENT WASTEWATER ISSUE

INDUSTRIAL WASTEWATER

IFM recently finished implementing a large-scale water system for an industrial client. Upon completion of the water system, this same client's existing wastewater treatment system took a turn for the worse. The client's wastewater system was not an IFM project, but instead provided and installed by a competing water technology company. Design constraints only allowed for treatment of approximately one third of the total flow, leaving two thirds of the waste stream to be hauled offsite at an inordinate cost to the client.

Having a strong working relationship, the client called his IFM contact to see if there was a possible solution. After review of the excess wastewater issue, IFM was able to offer assistance.

DESIGN SOLUTION > In less than 24 hours, IFM's technical staff set-up a 7 GPM Ultrafiltration (UF) System, that had previously been used as a pilot unit, in an enclosed trailer and shipped it to the site. Upon arrival, IFM personnel performed startup operations and provided UF operational training to the client's staff. The teamwork paid off as the system was brought online rapidly.

The results of the installed UF system were immediate. The milky water that entered the unit discharged clear. The ease of operation and clarity

of the UF discharge opened the discussion for IFM to design a full scale, permanent UF system. With cutting costs and sustainability in mind, it was proposed that the client reuse the UF system's purified water by channeling it back into the manufacturing process.

Although a small company in the sea of the water technology industry, IFM prides itself on having excellent, responsive, technical staff who specialize in solving our client's most challenging water and wastewater issues.



Milk-colored water entering the UF System



Discharged purified water

EMPLOYEE CORNER



A HUGE CONGRATULATIONS

TO OUR NEWEST OPERATORS

Nate Leritz - Class A Water Operator

Kody Crabb - Class A Wastewater Operator and Class I Water Operator

Greg Heinrichs - Class A Wastewater Operator

Don Eagle - Class III Ohio EPA Wastewater Works Operator



IFM IS TONY STRONG



The famous Mr. Troy Houser won his golf league...

Biggest news happening in McClure since an Emu was spotted on Route 6!



LIGHT ON DON EAGLE

IFM Position:

Hire Date:

Expert In:

Wastewater
Systems and

Certifications:

Class A
Wastewater Works Operator
Class A Ohio EPA
Wastewater Operator

Don's Favs:

Golf, cook
and go to
with his wife



Congratulations to IFM newlyweds
Troy Houser and wife Kelsey Houser & Billy Pelland and wife Elizabeth Pelland who recently married!