SENECA
NEWS IN REVIEW

Seneca Companies
The Complete Solution

JANUARY 2019 | ISSUE 20

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MESSAGE *from* JC

To our customers:

When I look back at 2018, I am very proud of what our great team at Seneca has accomplished. Several new initiatives and programs were launched in addition to our everyday business. More so than ever before, the industries we serve are seeing disruption from multiple fronts, so we believe we need to continue to innovate and make ourselves better in order to help our customers stay competitive in their businesses.

2018 highlights

In the last year, we have:

- Hired 109 new employees.
- Brought on a new vice president of safety to directly manage our safety programs.
- Constructed 17 new convenience stores and completed six major remodels through our General Contracting group.
- Invested in new state-of-the-art automated/robotic equipment used in ethanol plant cleaning.
- Invested in a new state-of-the-art human resources management software which will be fully implemented in 2019.
- Successfully completed thorough training programs for licensed petroleum equipment installers and licensed petroleum service technicians. These are fully homegrown trainings designed to provide Class A education to our employees in those roles.
- Completed our first full year with our new Commercial Petroleum and Automotive Equipment division.
- Completed grass roots strategy discussions with the culmination occurring this spring.

As we begin 2019, I look forward to seeing all these initiatives through to continued success and value generation for our customers. I also want to express sincere thanks to our valued employees and customers who put their faith and trust in us every day. Here's to another great year! ■

JC Risewick
President and Chief Operating Officer

Waste Solutions Services

The unlimited potential of three pieces to the puzzle

Written by **Loyd Phillips**
Vice President of Waste Solutions and Safety

1. Fuel polishing.
2. Frac tanks.
3. Automated equipment.

These are just three of several specialized services within the industrial market offered by Seneca's Waste Solutions Services divisions.

We are proud to be one of a limited number of companies that offer fuel polishing. Additionally, we recently picked up a new region and are excited to offer this service more widely throughout our geographical footprint.

In my previous positions at other companies, we did not offer frac tanks – we rented them. Seneca takes its motto of being **"The Complete Solution"** seriously. Not only does Seneca provide frac tanks, we also clean them and haul the waste away, taking care of the entire process from start to finish.

Of these three specialized services, automated tube bundle hydroblasting equipment is our newest service offering. This cutting-edge technology sets us apart from the competition due to its high-quality cleaning. Not only is this method safer for Seneca operators, but it also provides a more consistent cleaning than doing so manually. In turn, this precise cleaning helps our customers do their business more efficiently.

I'm incredibly excited for what 2019 will bring and Waste Solutions' success in this coming year will be largely due to these three services. They may be in infancy now and are not the largest pieces of the puzzle that makes up Seneca Companies, but by putting individual focus on growing these three areas, we are opening ourselves up to unlimited growth potential.

Seneca Companies has a reputation of being a one stop shop for our customers when it comes to our wide variety of services. Although our company is well-rounded, our employees are specialized. These new services come with dedicated experts to ensure the job is done in the best fashion possible for our customers.

We are expanding that specialization across our geography as well. Waste Solutions Services does work in 16+ states and we are consistently seeking feedback on what our various branch offices need in order to provide specialized services to the customers in their regions. We encourage you to reach out to your Seneca representative to let them know how Waste Solutions can better serve you and your business.

In addition to these service offering expansions, we are also excited about the improvements to our already stellar safety culture. We improved safety in 2018 by putting additional measures into place, making our commitment to safety even stronger. I am proud to be a part of Seneca and appreciate all the work that our employees in the field and management have done to ensure we achieved our goals when it comes to operations and safety, and I am excited for the unlimited possibilities that 2019 holds. ■

Waste Solutions Services

Automated tube bundle hydroblasting technology & frac tank fluid management complements expansion of our **"Complete Solution"** service offerings

by **Chris Biellier,** PG,
Vice President of Environmental Services and Strategic Partnerships

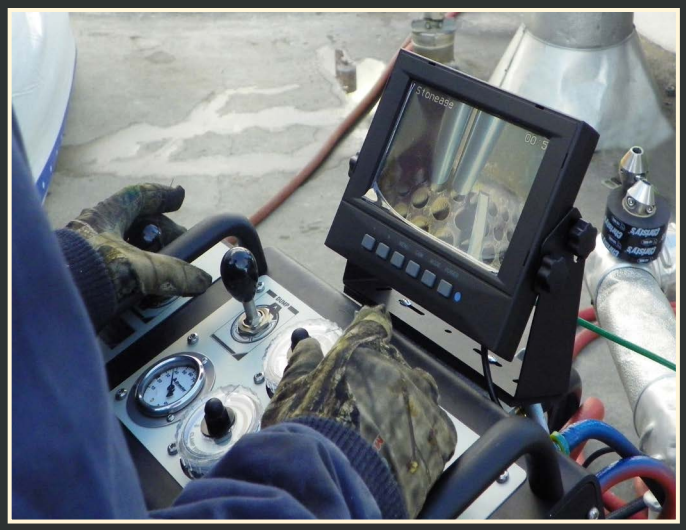
Seneca Companies' top priority is safety. That's why we have invested in the future with hydroblasting technology developed by StoneAge. Inc.

Automated equipment is changing the water blasting industry by making it safer and more efficient. It increases safety by distancing the operator from the nozzles and potentially hazardous confined space environments and allows for remote operation of cleaning tools. Our operators no longer need to enter the confined space except for initial setup for enclosed evaporator units. The controls, with the aid of high-quality mounted video cameras, allows the Seneca operator to control the hydroblasting tools inside the confined space while being located safely outside.

Each automated tube bundle blasting unit can clean two tubes simultaneously, opposed to older methods of single tube hand lancing. This technology eliminates the risk of working in the high-pressure blast zone and dealing with steam, low lighting, lances and hoses that can cause trips or falls. Everything is controlled remotely, eliminating extra labor cost and fatigue. Seneca's automated system meets the high demands of cleaning tube bundles associated with evaporators, heat exchangers, condensers and process piping in the toughest environments while saving the customer time and money.

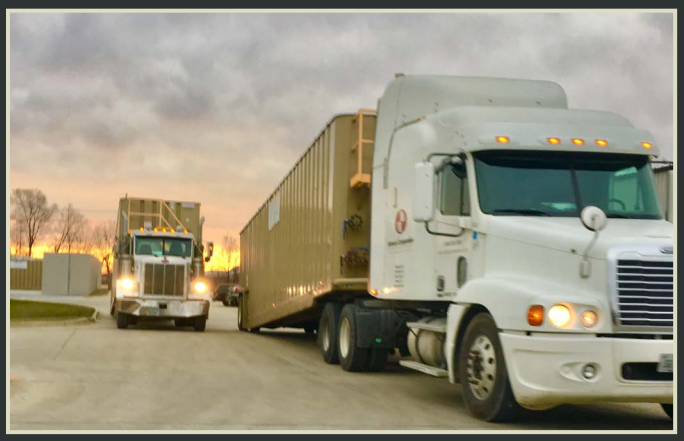
Benefits of using Seneca's automated tube bundle cleaning services includes:

- Safer environment as manual work is reduced to a minimum.
- Increased productivity.
- Increased flexibility due to remote operation.
- More intensive and consistent cleaning.
- Less downtime.
- Automated line jetting.
- Ability to clean vertical, horizontal or in any angle.
- Ability to clean any size of tube bundle.
- Minimum use of water and energy.



And it doesn't stop there. With its large fleet of wet and dry vacuum trucks, hydroblasters, spill response equipment and frac tanks, 75 employees, more than half a dozen satellite facilities and a diverse array of customers in a variety of industries across 16 states, Seneca Waste Solutions Services is a complex and sprawling company. The Des Moines-based business - a division of Seneca Companies - is built on a fairly simple business premise: differentiate from competitors by providing customers with services they need. Our company is like a wagon wheel. Our customers are the center hub and the spokes represent all the services those customers need.

We are constantly looking for ways to improve and lead the pack in terms of service and technology which is befitting to the companies' motto, **"The Complete Solution."** In addition to its commitment to water blasting technology and vacuum truck services, Seneca continues to invest in its growing fleet of 21,000-gallon frac tanks dispersed across its geographic footprint with plans to invest more heavily in 2019 by increasing its numbers from 80 to 150 units.



The large fleet of frac tanks and automated tube bundle cleaning equipment provides good examples of the division's strategy of providing customers not only with niche services, but also investing in new equipment and technology that leads to increased productivity, employee safety and customer service.

For example, let's look at frac tanks. Before, customers were frustrated that they had to rent frac tanks from rental companies, which only provided delivery and pickup. The big missing cog in the middle was transportation and/or disposal handling of the stored waste liquids in the tanks. In addition, these same tanks required thorough decontamination before they could be removed from the customer's site. Now, Seneca is the simple answer, as we provide all that and more.

We essentially added another service to an existing customer base without the need of the customer searching for another provider. We are a one stop shop solution. Furthermore, Waste Solutions decided to invest in frac tanks because renting them often was problematic – not enough units available, for instance, or only available from a distant location, which increased delivery and pickup costs. Having a fleet of frac tanks of our own gives Seneca better control and management for fast turnaround projects or shutdowns and dispersing their staging locations when not in use allows them to be closer to customers when needed.

Our goal is to either add complementary services to existing markets or to look for additional markets where we can offer applications and services, while still reacting quickly to customer needs. Companies that will thrive are those that are willing to adapt to changing market needs, such as increased safety, efficiency and customer service, and Seneca fully intends to be one of those companies. ■

Seneca Sales

UST water infiltration: causes, effects and costs

Written by **Justin Richmond**
Director of Fuel Quality and Restoration Services

In recent years, the fueling industry awakened to the detrimental effects of water infiltration into fuel storage systems. Customers who experience fouled tanks ask the same questions.

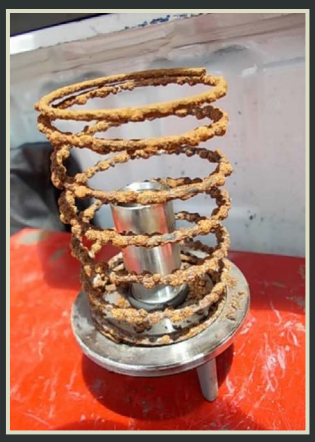
"Why is the condition of my tank so bad?"

"How is water getting in?"

"What can I do to protect my fuel and the tanks in which it resides?"

History of problems

To answer customers' questions, we must go back about a decade to the introduction of ethanol and ultralow sulfur diesel (ULSD). That's when a growing number of diesel and gasoline storage tanks and dispensing systems began experiencing unusual and accelerated corrosion and bacteria problems. Corrosion that previously appeared over 10 or 20 years started appearing in as little as 30 to 60 days.



Examples of corrosion associated with ULSD.

A 2012 Battelle study, "Corrosion in Systems Storing and Dispensing Ultra Low (sic) Sulfur Diesel (ULSD), Hypotheses Investigation," linked mild steel corrosion to enhanced microbial activity in systems storing and dispensing ULSD and the impact of ethanol cross contamination.

Tank owners also were finding that another material was fouling filters: a dark, metallic substance that resembles coffee grounds.

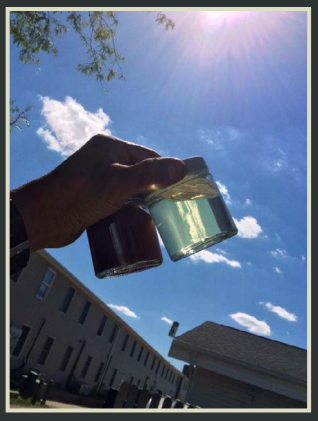
At first, many industry stakeholders blamed ULSD or bacteria accumulation in tank bottoms because the increased corrosion emerged about the same time that the Environmental Protection Agency mandated the switch to ULSD.

But ULSD by itself is not corrosive; rather, the bacteria that forms creates the issue. As mentioned, investigations found traces of ethanol in ULSD. And ethanol by itself isn't corrosive, but when combined with water in the fuel, it becomes the food source conducive to bacteria growth. And this bacteria converts (oxidizes) ethanol into acetic acid, which is highly corrosive to mild carbon steel.

The switch to ULSD happened roughly when gasoline manufacturers started putting ethanol into gasoline. Trace amounts of ethanol-blended gasoline would get into the diesel fuel as delivery tankers switched from one product to the next, known as "switch loading." This cross contamination, even in small amounts, affects fuel quality.

Ethanol and water have one thing in common: They love each other, more so than gasoline and diesel fuel. When ethanol-entrained diesel fuel is discharged from a tanker into a ULSD UST with bottom water, the ethanol migrates to the water at the bottom of the tank. Again, it's the water in both diesel fuel and ethanol that creates process.

This has led to the realization that the fuels we use today have much different capabilities, don't play nice with one another and both don't like water.



Fuel samples before (left) and after cleaning.

Ethanol is here to stay, and for good reason from an environmental standpoint. Not all USTs in the U.S. experience the same corrosion levels or biomass accumulations; however, UST operators who address water issues quickly have fewer problems.

How does water get in?

Water gets into tanks through loose fittings and plugs to damaged fill buckets, as well as by the overaccumulation of water in sumps. Any crack or wall deterioration in a tank creates enough space for moisture to creep inside the tank.

This new environment requires additional measures to protect the storage system and the fuel inside the tank before the fuel passes to the next point of contact, which is usually the customer.

Water also can infiltrate tanks during fuel delivery and distribution. Fuel delivery can be complex, and the interchanging of hands on the fuel increases contamination risk.

Condensation is a definitive, simple explanation for moisture contamination. Temperature fluctuation and air that enters a tank through vents or cracks increase the risk of water condensation in a UST. Condensation is more common in aboveground storage tanks in regions where seasonal temperatures vary more.

Prevention

UST operators can adopt several proactive measures to prevent water infiltration into tanks. Nothing can guarantee a 100 percent water-free tank, but operators can reduce the severity of water in tanks.

Most tanks have monitoring systems that gauge water in them. Sticking tanks continuously and consistently is another way to check water levels to ensure systems are giving proper feedback. Visual observation and testing should be a regular part of maintenance schedules.

- Check fittings and caps to ensure tightness.
- Ensure spill bucket areas are not prone to intrusion.
- Periodically look at riser tubes, joints and threads. Rust signals a problem.
- Check fuel filters, too. If a material that resembles coffee grounds is present, a corrosion issue exists.
- Look for rust on dispenser filter faceplants. If there is rust, look at any steel springs. Typically sediment appears in the filter media. To determine if it's rust, pass a magnet over it.
- Keep consistent records of filter change dates, slow flow to dispensers and customer complaints.

Without this type of "hygiene" monitoring, tank contamination and other fouling can wreak havoc on associated parts or components. Treating a storage system as if it has a 100-year shelf life is not an option and can lead to deterioration of tank walls by rustification and corrosion. This opens the possibility of additional wear and tear on the tank and produces a breakdown of the inner wall, leading to more fouling of the fuel within the tank.

To schedule a free tank and fuel sampling, contact Justin Richmond at **jrichmond@senecaco.com** or 515-350-8693. ■

Fuel Systems & General Contracting

Fast-paced and focused

Written by **Corey Hackett**
Business Development, General Contracting

The fourth quarter of 2018 was fast-paced and focused for the entire Seneca General Contracting division as several projects were completed and others were started in order to meet late April completion deadlines.

Modular c-stores

Our General Contracting team has also wrapped up five modular c-stores with four more currently under construction. These 1,300 square-feet buildings feature a modular style construction which contains 85 percent prefinished interior and exterior, a small kitchen area, plenty of retail and sales cooler space and a restroom. The fuel layout consists of one to three compartment 26,000-gallon tanks with four to six fuel dispensers, depending on the site layouts. These projects consist of approximately eight weeks of construction time from ground break to finish. They also serve as an alternative for customers looking at convenience store options with less space required on sites, a much quicker turnaround construction time and without the larger financial investment.

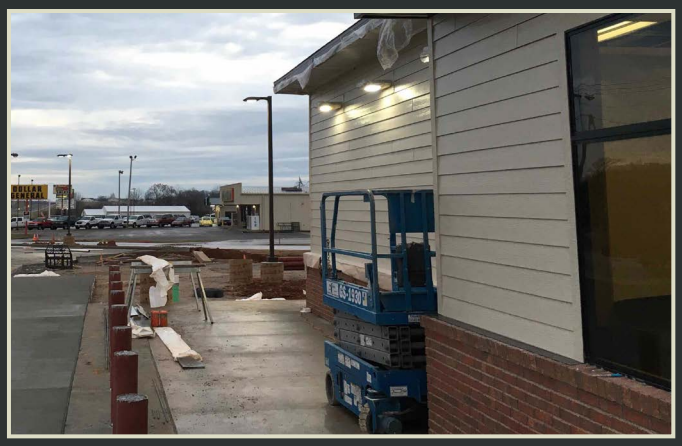
Completed modular c-store.

Casey's General Store in Auburn, Kentucky

As for larger projects, our team is wrapping up a Casey's new build in Auburn, Kentucky. This store had a very shallow layer of soil switching to straight rock, requiring the tank hole to be drilled and blasted in order to excavate and install the UST tanks for the fuel system.

Modular c-store in progress.

Blasting rock while constructing a Casey's General Store in Auburn, Kentucky.



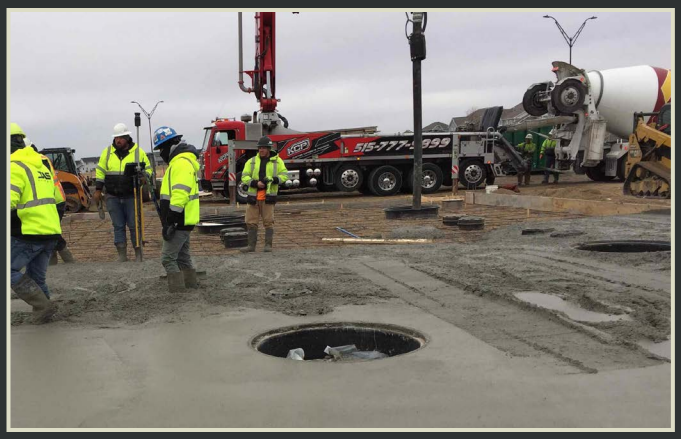
The finishing touches at a Casey's General Store in Auburn, Kentucky.

Overcoming challenges

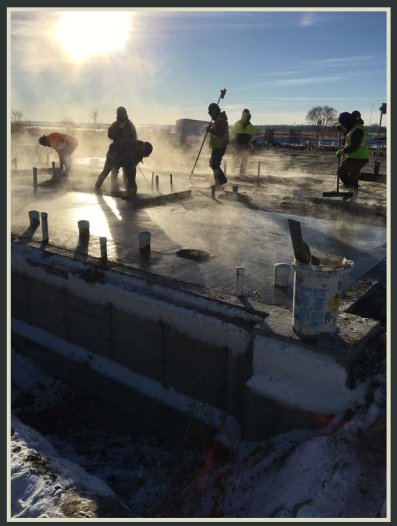
Our team has also started new buildings in Altoona and Creston, Iowa; Macon, Missouri; and Cozad, Nebraska. In these new sites, we have tackled poor existing soil conditions, previous building demolition and managed high groundwater levels along with sandy soils which required a complex dewatering and shoring system to get three 30,000-gallon tanks installed. All the crews and subcontractors have pushed very hard to complete as much ground work and concrete pours as possible to help carry the projects through the winter and meet our late April completion dates. ■

Erecting the building at Casey's General Store in Cozad, Nebraska.

Three 30,000 gallon USTs were installed at Casey's General Store in Cozad, Nebraska.



Pouring concrete over the UST pads at Casey's General Store in Altoona, Iowa.



Pouring the building slab at Casey's General Store in Cozad, Nebraska.

Environmental Services

Improving report generation and standardization

Written by **Steve Charlton**
Environmental Manager

One of the building blocks of work in the Environmental Services division is the Phase I Environmental Site Assessment (ESA). This is an investigation into the current and historical status of a commercial property involved in a real estate transaction regarding environmental risks. If you visit the staff of one of our four offices on any given day, chances are, you will find someone working on a Phase I ESA. These assessments can lead to future work consisting of projects such as Phase II ESAs, UST closures, leaking UST site assessments and remediation, dewatering projects and over-excavations.

Often, we are given a very limited time frame to complete these assessments and we may have one client acquiring sites across large geographical areas. Therefore, we must provide a very consistent product and must do it in a short amount of time. In order to improve the standardization of our product and to do it in a timely manner, Seneca has partnered with a state-of-the-art report authoring software platform called **Quire.**

quire

Seneca began working with Quire approximately six months ago. One of the very first benefits of working with Quire was that it made us take a step back and re-evaluate the templates that we were utilizing to create our reports. It provided us a chance to streamline our report and eliminate excess language that only slowed down the user of the report without adding value. Delivering the conclusion upfront will assist our clients getting the most relevant direction of their projects, leading to less time searching for the conclusion and repetition. These controls also aid in creating a singular voice between different report writers that may be working on a portfolio of reports for a single client across large geographic areas. Consistency is a must for us and Quire provides a great resource to meet this goal.

Another timesaving mechanism provided by Quire is a software application that can be utilized in the field when recording notes and taking photographs. The app allows the field scientist to label photos as they are taken in the field. Once completed, these photos can be uploaded directly into a report appendix. This step that usually takes just a few minutes once could easily have taken over an hour. Being able to create this appendix in real time also reduces the possibility of forgetting something in the time it took to get from the field back to the office to start compiling the photographs. These timesaving mechanisms also allow more time for the report writer to focus on what really should be the most important piece of the report. These are the conclusions that are found from the research of the assessment. The quicker we can get to the conclusions, the more time we have to make sure we get them correct.

We began by utilizing Quire for Phase I ESA reports, but this is not the only application for this software platform. We are now also using it for asbestos reports and in the future, we look to utilize the service for Phase II ESAs, tank closures or any number of other types of reports.

For more information on Quire or Phase I and Phase II ESAs, contact **Steve Charlton**. ■

Corporate News

Senior leadership changes

Originally published Dec. 7, 2018

Seneca Companies is pleased to announce the following changes to its management structure, effective December 3, 2018.

Chris Biellier has been named vice president of Environmental Services and strategic partnerships.

In addition to divisional oversight of Seneca's Environmental Services and Remediation & Process Controls divisions, Biellier is now responsible for the cross divisional development of business growth opportunities in markets served by all of Seneca's divisions.

"Chris is uniquely qualified to help us foster and grow relationships in the industries we serve," said JC Risewick, president and COO of Seneca Companies. "His technical background in these industries is second to none, and his operational experience creates a winning combination to help us develop the right value proposition and then bring it to the market."

Biellier has been at Seneca for over 14 years, first serving as the general manager of the Waste Solutions division and then as the vice president of both the Environmental Services and Waste Solutions divisions.

"I welcome this opportunity to look toward Seneca's aspiration of growth and success through fostering strategic partnerships in industries and the markets served by all divisions within our organization," said Biellier. "I will embrace the confidence of the organization in my abilities and 31 years of industry experience to ensure those objectives are met."

Chris Biellier

Loyd Phillips

Due to Biellier's additional strategic partnership responsibilities, he has stepped down from his role as vice president of the Waste Solutions division.

Operational responsibility of the division will be transferred to Loyd Phillips, who will now serve as the vice president of Waste Solutions and safety.

"With Loyd's safety and operational background in upstream oil and gas industries, he is a natural fit for the role," said Risewick.

Phillips joined Seneca in 2017 as a strategic account manager for the Waste Solutions division and was named vice president of safety in May 2018. He will maintain his safety responsibilities while taking on operational responsibility for the Waste Solutions division.

"The Waste Solutions division has a great staff in place," said Phillips. "There is a wealth of knowledge and experience across the branches, spanning from the field to the office employees, sales team and managers.

"This team has the willingness to do the right thing, even if no one is looking. Safety culture is sometimes a tough thing to change, but the existing and previous leadership have been instrumental in creating this culture," said Phillips. "It's this culture and work ethic that will drive future successes and I'm excited to be a part of it." ■

Corporate News

Seneca Companies invests in automated tube bundle hydroblasting technology

Originally published Jan. 29, 2019

Seneca Companies' Waste Solutions Services division is pleased to announce their investment in automated hydroblasting technology developed by StoneAge Inc.

"Automated equipment is changing the water blasting industry by making it safer and more efficient," said Chris Biellier, vice president of Environmental Services and strategic partnerships.

The remote operation of cleaning tools allows the operators to distance themselves from the nozzles and potentially hazardous confined space environments. The controls, with the aid of high-quality mounted video cameras, allows the Seneca operator to control the hydroblasting tools inside the confined space while being located safely outside. Operators no longer need to enter the confined space except for initial setup for enclosed evaporator units.

"Everything is controlled remotely, eliminating extra labor cost or fatigue," said Biellier.

Each automated tube bundle blasting unit can clean two tubes simultaneously, opposed to older methods of single tube hand lancing. This technology eliminates the risk of working in the high-pressure blast zone and dealing with steam, low lighting, lances and hoses that can cause trips or falls.

Seneca's automated system meets the high demands of cleaning tube bundles associated with evaporators, heat exchangers, condensers and process piping in the toughest environments while saving the customer time and money.

Seneca's automated tube bundle cleaning services increases safety, productivity, flexibility and results in more intensive and consistent cleaning. The equipment automates line jetting, cleans in any angle and can clean any size of tube bundle. It also reduces downtime, the use of water and energy.

In addition to its commitment to water blasting technology and vacuum truck services, Seneca continues to invest in its growing fleet of 21,000-gallon frac tanks dispersed across its geographic footprint. The company plans to invest more heavily in 2019, increasing its numbers from 80 to 150 units.

"We are constantly looking for ways to improve and lead the pack in terms of service and technology, truly exemplifying the company's motto of providing **'The Complete Solution,'**" said Biellier.

For more information about automated hydroblasting equipment or other Waste Solutions service offerings, contact Seneca Companies at 800-369-5500 or visit **www.senecaco.com**. ■

Corporate News

Tulsa and Grandview Waste Solutions locations hire new branch operations manager

Originally published Jan. 30, 2019

Seneca Companies Waste Solutions Services, known for environmental and industrial preventative maintenance cleaning, hydroblasting, wet and dry vacuum truck services, waste transportation and disposal and emergency spill response, is pleased to announce Doug Wilson as the operations manager for its Tulsa, Oklahoma and Grandview, Missouri branches.

Wilson has ten years of experience in environmental consulting for the retail petroleum and oil and gas industries, as well as waste profiling for hazardous and non-hazardous waste streams. He initially joined Seneca in January 2017 as an environmental project manager for Seneca's Environmental Services division.

"I am grateful for the opportunity to take the skills I have learned over time from Environmental Services and applying them to Waste Solutions, bringing a different perspective and contributing to the synergy of Seneca," said Wilson. "I am looking forward to working with a great group of talented individuals on the Waste Solutions team."

As the branch operations manager, Wilson is responsible for the day-to-day operations and management of the Tulsa Waste Solutions branch and secondary oversight of the Grandview branch. His duties include, but are not limited to, supervising and training field technicians, identifying new business opportunities, diagnosing and troubleshooting equipment problems, and promoting and practicing proper safety procedures.

"Due to Doug's experience as an environmental project manager, along with his experience working in the field utilizing a lot of the equipment that Waste Solutions currently has, I believe he will look for ways to create synergy between the divisions to streamline procedures to improve efficiency, which will bring added value to our customers," said Dean Kirgis, general manager of Seneca Waste Solutions.

Please feel free to contact Doug Wilson at 918-210-0180 or by email at **dwilson@senecaco.com** with any of your southern region Waste Solutions needs. ■

SENECA'S MISSION STATEMENT

Seneca Companies will meet or exceed our customers' expectations. Our employees are committed to treating customers, suppliers and each other with integrity, honesty and respect.

CORE VALUES
Seneca Companies is committed to:

Listening - Understanding the voice of our customers and employees.
Continuous Improvement - Change is constant.
Accountability - Responsibility for our actions.
Teamwork - Multi-divisional teams are essential.
Fact Based Decisions - Seeking root cause, not blame.
Competitive - Drive to succeed.
Safety - Concern for the wellbeing of our employees.
Sustainability and the Environment - Concern for the wellbeing of the earth.

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Davenport, IA | Oreana, IL | Grandview, MO | South Sioux City, NE
Denver, CO | Tulsa, OK | Nashville, TN

FUEL SYSTEMS | GENERAL CONTRACTING | ENVIRONMENTAL SERVICES | WASTE SOLUTIONS SERVICES
REMEDIATION & PROCESS CONTROLS | AUTOMOTIVE & COMMERCIAL EQUIPMENT

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