

www.rgf.com / Headquarters: Riviera Beach, Fla. / Employees: 120 / Specialty: Environmental water, air and food systems / Walter Ellis, executive vice president and general manager: "We're constantly coming out with new technologies and upgrading current products."



A Clean Business

RGF leads the way with its environmental systems that produce cleaner air and water. BY ALAN DORICH

fter three decades, RGF
Environmental Group Inc. is
the leading provider of environmental systems in its market, President Ron Fink says. "We have two million
products out there," he says. "Nobody
comes close to us."

Riviera Beach, Fla.-based RGF designs,

engineers and manufactures total turnkey systems that provide safer air, water and food without the use of chemicals. A veteran of the nuclear industry, Fink founded the company in 1985 with a focus on wastewater recycling.

The catalyst to RGF's start was when one of Fink's acquaintances, the owner

of the Asplundh tree trimming company, approached him for advice. At the time, Asplundh was being cited by the EPA for wash water discharge, RGF Executive Vice President and General Manager Walter Ellis explains.

Fink gave him suggestions and then conceived the idea for RGF, which has expanded its scope over the past 30 years. Today, the company employs a staff of 120 and has a broad product line, including air purifiers, water recycling systems, oil and water separators, and wastewater evaporators.

CONSTANT INNOVATION

RGF has enjoyed success thanks to its level of innovation, Ellis says. "We're constantly coming out with new technologies and upgrading current products," he says.

One example is its REME HALO air pu-

rification product, a redesign of its previous REME HVAC unit. With a higher ionized hydro-peroxide output, the REME HALO has faster kill rates for microbials in the air and on surfaces than older models, the company says.

It also drops more particulates from the air, helping those with allergies and other respiratory issues. But the company is not resting on its laurels after the success of the REME HALO product, Ellis asserts.

"We're on the next generation, which we're calling the HALO II," he describes. "It uses ultrasonic technology and will be out in the next two years."

HALO II also will be a substantial improvement over its predecessor. "It'll convert 99 percent of the water it traps in the air," Ellis says, noting that the product also can deter insects and rodents.

But unlike pest control products, it will not kill the insects, Fink asserts. "You'll see pest control companies that will spray HVAC ducts," he says. "Spraying chemicals is not something that I like."

The company has conducted successful tests with the HALO II product, Fink adds. "We've built chambers here where we put mice, roaches and ants [in with

the product] and they go to the other side," he describes. "That's going to be a huge [success]."

Ellis agrees. "We've already filed for five patents on that technology," he reports. "The technology is working even better than we hoped."

RGF also is innovative when it comes to its manufacturing methods. For example, "We've been using 3-D printers for over 10 years," Ellis says, noting that products such as REME HALO were designed and manufactured using the printers.

The company also has full wet and electronics labs in its locations. "We also have a full-scale, ASHRAE 52.2 and 145.2 compliant testing [facility] so during R&D development a new product will be tested for its actual performance well before it's even considered for launch," he says.

TAKING FEEDBACK

RGF listens to its customers' suggestions, Ellis says. "They'll tell us what we need to do better," he says, noting that one example was when the company took feedback on its Guardian Air HVAC Cell product.

Designed to eliminate sick building syndrome, the Guardian Air eliminates odors, air pollutants, volatile organic compounds (VOCs), smoke, mold bacteria and viruses. The end-users wanted a better way to install the product, so "we added a quick-release system," Ellis recalls.

The feature proved to be so successful that RGF has implemented it on the REME HALO and on a UV light that the company will release soon. "We're looking at our core, existing products to make them better," Ellis says.

TOTALLY VERTICAL

RGF maintains a completely vertical operation, Fink says. At its headquarters in

A SUSTAINABLE SHIP

RGF Environmental Group Inc. is the owner of Envision, the world's first environmentally friendly mega-yacht, President Ron Fink says. RGF acquired the Broward motor yacht, which it then hauled out of the water and it underwent a multimillion dollar, twoyear retrofit all done by the company.

With a 110-foot hull, the boat is outfitted with much of the company's technology, including photohydroionization (PHI), a lightbased electromagnetic energy that destroys mold, bacteria and airborne organics.

"PHI is used by most Fortune 500 food processors as a food, air and water sanitizer and in many buildings for air purification," the company says, noting that it also is used by the U.S. Military and other federal agencies as well as major cruise ship lines.

PHI benefits include food safety and shelf-life extension. "[Users experience] up to 40 percent extended shelf life for food treated with PHI," the company adds.

RGF donates "an evening on the yacht" at various charity events annually, where it auctions off the chance to use Envision for parties. Fink notes that users have paid up to \$47,000 for events on the boat. "We'll [also] explain to the party that we can also cater it," he adds.

Recently, Envision returned from a 2,000mile voyage that saw it burning 47 gallons of fuel per hour. "It's usually [more per hour]," Fink says.





A SEASONED VETERAN

RGF's longtime employees include National Sales Manager Mathew Charles, who has been with the company for a decade. Like the members of the company's executive staff, he credits RGF's success to its innovation.

"Where a lot of our competitors are very small, we're multi-divisional and we're a global company," Charles says. "Our engineering team is constantly coming up with new, patented technologies."

Although many others at RGF have a long tenure with the company, it has taken a "young, energetic" path when it comes to taking on new associates, he adds. "We're definitely focused on the younger generation right now [as we] move forward," he says.

Charles predicts a strong future for RGF. "The sky's the limit," he says, noting that the company has new products in the works. "We can't reveal them yet, [but] we're waiting for patents."

Riviera Beach, the company has 86,000 square feet of manufacturing floor space with state-of-the-art fabrication, manufacturing and quality-control procedures. They currently have the ability to manufacture and assemble all metal, mechanical and plastic components in-house with specific machines for injection molding, vacuum forming, CNC plasma, CNC routing, as well as specialized large metal forming equipment.

"Everything is done here and that way we save money allowing us to continually pass this savings on to our customers," he reports, adding that he is proud of RGF's operations. "[I enjoy] having a facility that makes you smile when you walk in the door."

From there, "We're shipping millions of dollars' worth of product to China," Fink says, noting that the company decided to become vertical in its operations several years ago. Previously, RGF used to buy components from China, but changed its process due to delays and high shipping costs.

UP TO THE TESTS

RGF takes quality control very seriously in its operations, Ellis says. Not only does

the company perform outside audited inspections quarterly, "We'll do tests on all critical components," he reports.

For example, all ballasts and lamps must go through performance testing before they are installed. These include simulations that actually replicate the road vibrations that a lamp will experience "on a UPS truck as it travels down the road," Ellis says.

The tests ensure that the filaments will not fall out, he notes. "It also makes sure that our customer's level of inconvenience is reduced," he says, noting that these tests are unique in RGF's industry.

But the company's own associates have experience with these types of tests, Fink asserts. "[When] I came out of the nuclear power industry, I took some of my people with me," he recalls. "We're all used to high levels of quality control."

"We've had many long-term customers from day one."

- Ron Fink

PROBLEM SOLVERS

RGF's focus on providing quality to its customers also extends through its warranty policies. "We've instituted in our warranty department a philosophy that you need to treat the customer as you would want to be treated," Ellis says.

For example, if a customer makes a claim on a warranty that may not be covered but it seems like a reasonable request, "We're not going to question it," he says. "If we have a problem and can solve it efficiently with no cost to them, then we're going to solve it."

This philosophy has allowed RGF to

have much repeat business. "We've also had many long-term customers from day one," Fink adds.

A VALIDATED PROVIDER

A significant portion of RGF's business is in the food industry, Ellis says. "Our air systems actually started there," he recalls.

Today, "We literally have millions of dollars of validation from almost every major food company in the world," Fink adds, noting that the company has served markets such as meat, poultry and shellfish. "We've made systems and sold them to those industries." The equipment is critical to these clients "because they have the FDA and USDA breathing down their necks," Ellis says.

RGF's products also are in most major hotel chains, including Marriott International Inc., Hilton Worldwide, the Waldorf Astoria and The St. Regis in Beijing to name a few.

COPING WITH CLAIMS

RGF faces much competition in its industry, including some that make knock-off products and claims that cannot be verified, Fink says. While the company has spent significantly to verify that its products work as promised in hospitals and school buildings, "[These] competitors make crazy claims with nothing to back it up," he says.

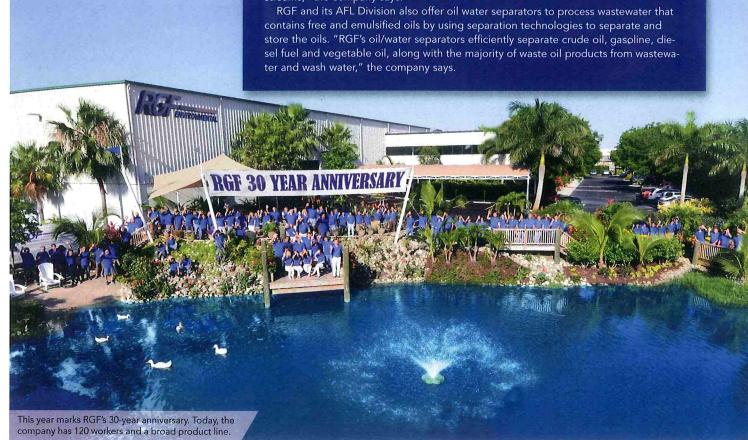
Some also have made false claims about the company, Fink says. "When you're No. 1, everyone takes a shot at you," he states. "It's very aggravating because ... there's not much you can do about it. We send out cease-and-desist letters to try and reduce it, but ultimately if they keep at it than your forced to take it to the next level. We are currently in the process of suing a competitor right

ADDRESSING WASTE

RGF's products include its industrial water treatment systems, which are offered to numerous industries and markets. "The Biosorb series, our modular biological wastewater treatment system, addresses waste streams that contain high organic and [biochemical oxygen demand] levels."

"The automated ESP series of flocculation and encapsulation systems treat a broad range of industrial wastewater effluent, making them suitable for discharge and in some applications reuse. RGF's patented thermo-oxidizer flash evaporator systems eliminate contaminated industrial process water, leaving only a dry ash residue for disposal.

"RGF's extensive range of pre-engineered industrial water treatment systems provide a robust, reliable solution for modern industrial and commercial liquid waste streams," the company says.



CRITICAL COMPONENTS

The world is opening up right now," Fink adds. "We're probably doing over \$10 million a year in China [with air purification products]. The whole third world is coming alive and aware of air pollution."

This August, RGF reported that its HVAC safety technologies were proven to kill the legionella bacteria, the same contaminant that led to the deaths of 12 people in the Bronx, N.Y. According to the company, the study showed a kill rate of more than 99 percent when its Pan Saver product treated the legionella.

"The patented Pan Saver unit was designed to eliminate microbial growth in HVAC system condensate pans and drain lines," RGF says. "Since legionella grows in water, the condensate pan is often the perfect breeding ground for bacteria."

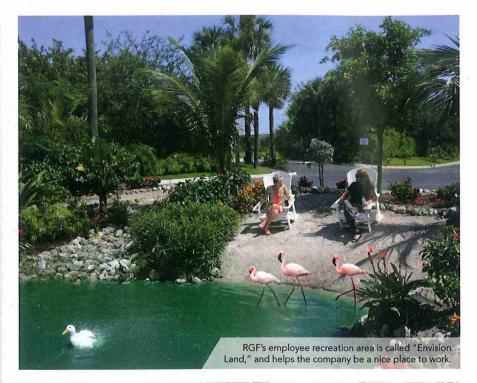
The company also has home, office and commercial building air treatment systems that use its patented PHI process. "With RGF's air purifiers, like the Guardian Air QR+ and REME HALO, bacteria and viruses as well as other airborne pathogens can be reduced by 99 percent," the company says.

RGF's technology also has been validated for control of salmonella, listeria monocytogenes, E. coli and staph, mold, yeast and viruses. "Odors, air pollutants, VOCs, smoke, mold, bacteria and viruses are all indoor air quality issues," commented Dr. James Marsden, a scientist in environmental air safety, in a statement.

He also is Regent's distinguished professor of food safety and security at Kansas State University. "HVAC safety and purification systems are critical components for commercial buildings, hospitals, nursing homes, schools, cruise ships and even private homes," he added.

now for defamation, commercial product disparagement, and false and deceptive advertising; you try and avoid it, but it's something you have to do when somebody's just lying."

Some of the competitors even claim their product has a catalyst that outperforms RGF's products. But when the company has had these competitors' products analyzed, "There's literally nothing there, we've seen no coatings





at all or ones that are literally just house paint that are being described as a photocatalyst," Ellis says, noting that RGF has to educate its customers on the superiority of its own products.

For example, "Some people claim that a stick light can treat air, which technically, it could, if it was designed to, most UV light systems are not," he says. "But when we make a claim, our claim is certain."

LOCATION, LOCATION

The Florida market is both challenging and beneficial for RGF's operations. "Being in Florida isn't ideal for transporting product out," Ellis admits, explaining the

cost for shipping larger orders exceeds those in other states.

But the location has been a boon when it comes to staffing. "We're attracting people living here in Palm Beach County," he says, noting that its location also makes it easier for customers to agree to pay a visit to its facilities, particularly in the winter.

They are impressed when they arrive, Ellis asserts. "Once you see our facility, you understand that we are not a small operation," he says. "We have beautiful landscaping, koi ponds and walking trails, [and] we offer multiple landscaped picnic areas for breaks.

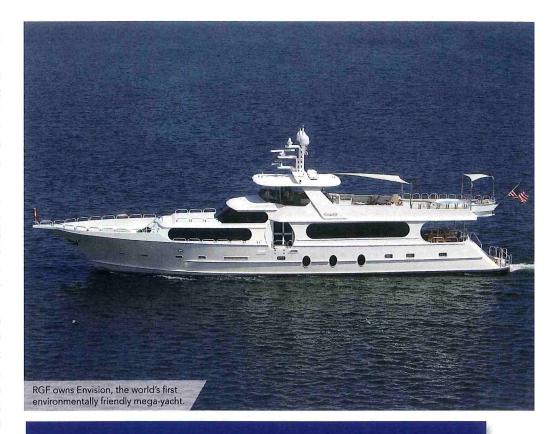
"We even built an employee recreation area with some uncommon employee amenities that we call 'Envision Land;' it includes perks such as a putting green, pool and ping-pong tables, [and] even a basketball area and horseshoes pits, [all these provided entirely for employee recreation]. It's just a nice place to work, and it helps show employees that we care about them and the environment that we provide for them to work in."

The company's production areas inside the manufacturing plant are even landscaped with palm trees. "People walk through and think, 'This is unbelievable," Fink says, noting that its entire location spans 100,000 square feet and is on seven acres.

AT THE FOREFRONT

Ellis and Fink see a strong future for RGF, particularly in the realm of air purification. After a recent outbreak of Legionnaires' disease in New York, people are becoming more interested in ways to improve the air, Ellis says.

"It's not going to go away," he says. "With the tight buildings and closed-loop air systems, indoor air quality is getting more at the forefront. We're educating the consumers and coming out with technologies on these quality issues, and backing it up with reliable and cost-effective products."



LOWERED LEVELS

This June, RGF reported that its PHI-Cell technology was found to reduce ethylene gas levels. This gives food products extended shelf lives by managing the ripening processes and avoiding pre-shipping and storage spoilage. "Packing houses use special storage rooms to sometimes employ ethylene gas, which is commonly used commercially to ripen tomatoes, bananas, pears and a few other fruits post-harvest," the company says.

"The flip side of unwanted, naturally occurring ethylene gas is that it negatively influences the fruit's texture and color, as well as shortens the time cycle for processors to ship to market," RGF says. "By reducing ethylene gas levels, the PHI treatment provides the packaging house with more time to process and ship before storage.

"For grow houses, ethylene, a natural occurring small hydrocarbon gas, can cause plants to die through loss of chlorophyll, abortion of plant foliage and stems, shortening and bending of stems," the company says. It utilized an ASHRAE-compliant HVAC testing chamber for a series of laboratory-controlled tests for its PHI treatment on ethylene gas.

During the 12-hour tests, ethylene levels dropped from 25 parts per million (PPM) to 3.6 PPM. "This again is solid proof of the efficacy of our PHI treatment processes that combines broad spectrum ultraviolet light rays with advanced oxidation to provide highly effective reduction of ethylene gas, as well as food sanitation for beef, chicken, pork, fish, vegetables, grains, fruits, brine and marinades, water and ice," RGF Vice President of Water and Food Products Bill Svec

"Now we've learned that in addition to effectively controlling plant air issues such as odors, air pollutants, VOCs, smoke, mold, bacteria and viruses, PHI is capable of reducing high levels of ethylene gas," Svec said, adding that many processors utilize the company's PHI treatment for food sanitation.