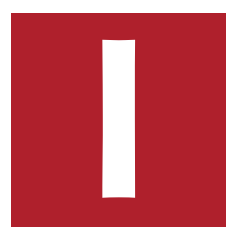




A TIMES INVESTIGATION

POISONED

Equipment to control toxic chemicals inside a Tampa factory didn't work right, creating more risks for workers. As violations mounted, regulators stayed away.



In the heart of Florida's only lead factory, Teddy Ebanks Jr. worked amid mounds of poisonous dust and noxious gases.

Late one night, fumes rushed through his respirator. Ebanks grew dizzy and nauseous. His vision blurred,

causing him to see double. Then, he passed out.

"I felt like somebody just turned my lights off," said Ebanks, 43, a former Marine.

The 2013 incident wasn't the first time workers at Gopher Resource had been overwhelmed by toxic gases inside the company's Tampa factory. And it wouldn't be the last.

Over the past decade, hundreds of Gopher workers have been exposed to alarming amounts of poisons. Nagging mechanical problems meant the factory's intricate ventilation system didn't function correctly, and key features designed to capture chemicals were either dismantled or turned off. The equipment failures forced workers to perform perilous tasks to keep pace with production as gas and metal fumes seeped at higher volumes into a cloudy workspace. Many wore company-issued respirators that didn't protect them.

Federal regulators didn't protect them, either.

The Occupational Safety and Health Administration is supposed to ensure that companies provide safe work environments. But the regulatory agency has repeatedly bungled the job at Gopher, allowing hazardous conditions to persist for years, a *Tampa Bay Times* investigation has found.

**BY REBECCA WOOLINGTON,
COREY G. JOHNSON
AND ELI MURRAY**

Times Staff Writers

PART 2: THE FAILINGS

OSHA gave Gopher ample warning before site visits, which meant the company had time to deep-clean a factory coated with lead.

The agency sent inspectors who missed evidence of dangerous levels of lead in the air, or who made other critical errors, including testing for the wrong chemical after workers complained about high gas exposure.

That was before OSHA stopped inspecting Gopher at all. The agency hasn't been inside the factory in five years.

U.S. Rep. Kathy Castor, D-Tampa, called the absence of regulators at the plant "a total failure — total abdication of their responsibility."

Beneath Gopher's smokestacks, workers extract lead from about 50,000 old car batteries a day and melt it to create new blocks of the metal. The plant is one of only 10 of its kind operating in the United States.

Since OSHA last appeared, Gopher repeatedly put workers at risk, internal documents show.

Lead fumes worsened in the area of the factory where the metal is turned to liquid. By 2019, nearly half of air-lead readings in the fur-

nace department were higher than the protection capability of the respirators assigned to most workers.

The company let lead dust pile up and detected life-threatening levels of sulfur dioxide at least three times in different parts of the plant.

An employee passed out after inhaling chemicals where wastewater is treated. And a maintenance worker was exposed to lead in the air 15 times higher than what his respirator could handle.

Dozens of other Gopher employees worked around air-lead levels that were hundreds of times above the federal limit. At one point, the concentration was more than 400 times over.

"I would call those levels outrageous," said Dr. Philip Landrigan, an expert in lead exposure and director of the Global Observatory on Pollution and Health at Boston College.

"This just calls out for an OSHA inspection," he said. "Big time."

The *Times* examined thousands of pages of company and regulatory records that detail unsafe conditions at the factory and how OSHA has responded. Reporters interviewed doctors, occupational health specialists and more than 80 current and former workers, many of whom shared testing results, videos and photos taken inside the plant as recently as this year.

The first installment of the *Times*' investigation, published last week, showed that most Gopher workers have had enough lead in their blood to put them at risk of a host of health problems, including high blood pressure, kidney problems and cardiovascular disease.

See POISONED, 2W

Today's installment illustrates why problems have spanned the last decade: The company and regulators have let toxic conditions linger.

Gopher did not agree to interview requests for this story. The company also declined to answer specific written questions about employee exposures.

In a memo to the *Times*, Chief Operating Officer Eric Robinson said Gopher is dedicated to safety and that average worker blood-lead levels in Tampa are well below the standards set by OSHA, "the recognized authority for employee blood-lead levels in our industry."

The blood-lead levels of Gopher workers have been under the OSHA standard for determining when employees must be removed as a safety precaution. But doctors, industrial hygienists and health officials say the level established by the agency in the 1970s is so high, it does more to protect companies than workers.

"OSHA needs to ban lead because there's no safe level — period," said John Froines, who wrote the lead standard for the agency in 1978.

Froines, professor emeritus at the University of California, Los Angeles, said the standard wasn't strong enough when it was implemented four decades ago. But he and others believed it was the best they could achieve. Since then, medical research has shown significant harm can occur from even low-levels of sustained lead exposure.

OSHA officials declined to be interviewed but responded to questions in writing. The agency said it sends inspectors to workplaces that are deemed the most hazardous based on a number of factors. Gopher, regulators said, hasn't warranted a visit under OSHA's criteria.

The Tampa OSHA office also uses a lottery system to decide which businesses to inspect under a special lead enforcement program the agency developed more than a decade ago. In recent years, Gopher hasn't been picked.

The program was introduced to better protect American lead workers who had levels of the neurotoxin in their blood high enough to cause harm but below the threshold requiring their removal under the agency's 1978 rules.

Blood-lead levels 25 micrograms per deciliter and higher "shall be considered high-gravity, serious and must be handled by inspection," according to the special enforcement program established in 2008.

The directive did not translate at the Tampa OSHA office, roughly 5 miles from the lead smelter.

More than 450 blood tests of workers at Gopher were at least that high from 2014 to 2018 alone, according to data obtained by the *Times*.

Not one prompted an inspection.

PROBLEMS PERSIST

When Minnesota-based Gopher bought the Tampa plant in 2006, the company had plans to transform the open-air smelter into an enclosed, state-of-the-art operation. A new factory, which encompassed the existing one, would raise the plant's production capacity from 30,000 tons a year to 130,000, an increase worth hundreds of millions of dollars in revenue.

Before construction began in 2010, the U.S. Environmental Protection Agency had updated its lead standards, restricting how much of the metal could be released into the community's air. That made it vital for Gopher to control emissions inside the plant, while having a high-functioning ventilation system to keep workers safe in the enclosed space.

Construction wasn't even finished when mechanical problems with the ventilation system were identified, according to a consultant report for the company. Lead dust from other parts of the plant had been leaking into the furnace area in spring 2012. Exhaust hoods designed to capture lead dust from the two furnace areas were inadequate, the consultants noted.

Gopher's efforts to keep lead from leaving the new plant made contamination worse inside. Air levels in the building ascended to dozens and hundreds of times the federal limit on a regular basis, according to the company's air-monitoring data.

The ventilation system wasn't equipped for how hard Gopher was running, former engineers and pollution control workers at the factory said.

Problems — with lead and sulfur dioxide — were felt acutely in the baghouse, an area of the plant that captures toxic dust before it can escape into the neighborhood.

The baghouse is a three-story structure where dust and exhaust gases from around the factory get vented and routed to rooms called cells. Inside each cell, more than 100 cloth bags, shaped like giant tube socks, hang from ceiling to floor. The bags collect dust and need to be shaken to release the particles into a container below.

Not long after the baghouse was installed, sulfur compounds began to destroy parts of it, eating the metal, and leaving gaping holes. The plant's mechanical systems to control sulfur dioxide often needed repairs, interviews and documents show.

Rust made the baghouse's automatic shaking feature too dangerous to use, a report found. That meant workers in hazmat suits had to go into the cells to

See LEAD, 3W



YALONDA M. JAMES | Special to the Times

Teddy Ebanks Jr. now lives in California. The former Marine passed out while working at Gopher Resource in 2013. On the cover, a photo of him was built into a mosaic by designer Sean Kristoff-Jones using dozens of images taken for this project.

Dangers loom inside a Tampa factory

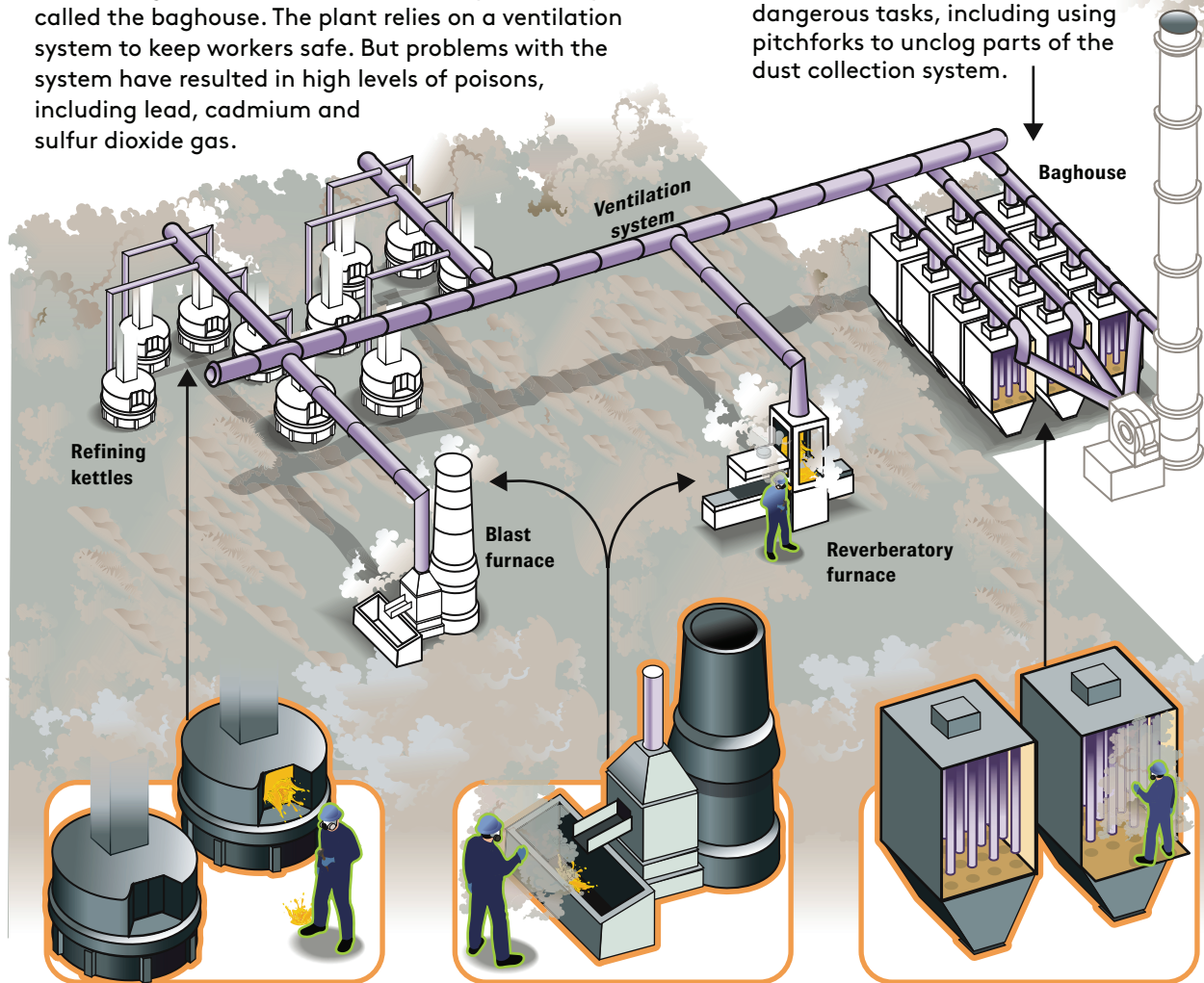
Workers have faced dangers inside Tampa-based Gopher Resource's recycling plant, the only operating lead smelter in Florida (right).



PROBLEMS INSIDE THE PLANT

Lead dust gets vented from around the plant to a place called the baghouse. The plant relies on a ventilation system to keep workers safe. But problems with the system have resulted in high levels of poisons, including lead, cadmium and sulfur dioxide gas.

Breakdowns forced workers into dangerous tasks, including using pitchforks to unclog parts of the dust collection system.



Workers have been burned by splattering lead. Video shows molten lead becoming volatile and erupting out of a kettle in the refinery.

Lead dust and fumes have spewed from the furnaces, contaminating the plant's air and work areas.

When corrosion disabled a critical baghouse feature, workers entered small rooms to manually shake bags full of lead-infused dust.

Sources: U.S. Dept. of Labor, regulatory documents and company records obtained by the Times. Photo Credit: Google Earth

Reporting by Corey G. Johnson, Rebecca Woolington and Eli Murray

Note: Graphic is a simplified depiction, not to scale.

Graphic by SCOTT BROWN | Special to the Times

Key facts about OSHA

■ When was the agency created?

Congress created the Occupational Safety and Health Administration in 1970 in response to public outcry over preventable workplace injuries and death.

■ What are the agency's enforcement powers?

OSHA typically performs spot inspections or can respond when workers initiate a complaint. Its fines are set in federal statute. Fines can reach as high as \$13,653 for a serious violation. OSHA can issue fines of \$136,532 per violation if the situation is deemed willful or a repeat problem.

■ How many people does OSHA employ and how many businesses does it oversee?

About 2,000 OSHA workers regulate more than seven million businesses nationwide. OSHA's leaders say the agency is understaffed and underfunded, often citing a statistic that it would take 160 years to inspect every workplace in America. About 75 OSHA employees monitor thousands of businesses in Florida. Tampa-based regulators are responsible for workplace safety in 20 central Florida counties. The Tampa office is about 5 miles from the Gopher factory.

■ Do other agencies also enforce workplace safety?

Roughly half of states supplement the federal agency with their own labor departments that inspect companies to ensure safe environments. Florida relies on federal regulators to conduct workplace inspections and investigate complaints. Among the businesses regulated by state and federal officials are the 10 secondary smelters operating across the country that produce lead. (There are no primary smelters that create lead from ore remaining in the United States.)

■ What rules can OSHA enforce at places like Gopher Resource?

Gopher is subject to many OSHA rules, including those regulating lead, arsenic, cadmium, sulfur dioxide, carbon monoxide, sulfuric acid and respiratory protection. OSHA's lead standard requires companies to measure the neurotoxin in the air and in workers' blood, but companies aren't required to submit the data to OSHA. No one checks how high worker exposure levels are, or whether the data is being gathered, unless regulators ask to see the records during an inspection.

■ What are the thresholds OSHA has set for removing a worker?

The agency's rules require that workers be removed from exposure if their blood-lead levels surpass 60 micrograms per deciliter. Medical research has demonstrated an array of health effects from the toxic metal at much lower concentrations, including cognitive, heart and kidney problems.

■ How does that blood-lead medical removal threshold differ from what health officials say?

The Centers for Disease Control and Prevention defines an elevated blood-lead level at 5 micrograms per deciliter. OSHA's standard is 12 times that amount. For years, researchers and professional groups, like the American College of Occupational and Environmental Medicine, have urged the agency to tighten the rules. OSHA's outdated rules have enabled companies to contend that they are meeting requirements, even though the OSHA rules have been proven to be unsafe to worker health.

■ Has the agency tried to update its rules?

Reviewing the medical removal level of the lead standard has been on OSHA's agenda since 2016. On average, it takes the agency more than seven years to issue standards.



MARTHA ASENCIO-RHINE | Times

Still a teenager at the time, Jacob Clemente worked as a contractor at Gopher Resource assigned to shake the bags in the baghouse. After Feb. 28, 2014, he never went back.

jerk and shake the poison-laden bags by hand, at least twice per shift.

Workers, like Tevin Craig, propped open the entrance to air out the spaces, their respirators fogging up from the rush of heat. They used monitors to measure gases before entering some of the cells. If the machine beeped, the levels were too dangerous.

“That little meter thing will be going off, screaming,” said Craig, who worked in the baghouse from 2013 to 2017.

When it stopped beeping, workers stepped inside. Sometimes, when dust overflowed from the bags, they left the cells looking like ghosts.

Sustained exposure to poisons can have severe long-term ramifications for the health of workers. And when chemical levels spike, they can pose immediate threats.

Three former baghouse workers described passing out, overwhelmed by heat and fumes, during their shifts. Five described having episodes where they couldn’t catch their breath and their hearts raced or beat out of rhythm.

As the malfunctions persisted, the need for shaking the bags became so dire Gopher hired contractors to help.

Jacob Clemente found himself at the factory in early 2014 assigned to the task. He was 19.

Around 11:20 p.m. on Feb. 28, he and other workers had just finished shaking the bags when Clemente took a water break. Nausea struck him, and he held back vomit. He rested his head to relax, then passed out.

He slumped onto the shoulder of a co-worker, who tried to rouse him. Someone called 911 and reported he’d been convulsing.

Clemente faded in and out but

remembered hearing footsteps, a siren, someone saying, “Put him on his back; lay his head here; tilt him up.”

He awoke in an ambulance rushing him to the hospital. Doctors believed Clemente had been exposed to sulfur dioxide and possibly other gases, according to medical records. They sent him home with a prescription for an inhaler to help with shortness of breath and wheezing.

The shift was Clemente’s last.

“Nope, I’m not coming back here,” Clemente recalled thinking. “No. Mm-mm.”

About an hour after Clemente headed to the hospital, some of the baghouse rooms caught fire.

In an email to environmental regulators, Gopher said the fire was caused when gases were sucked into the wrong ventilation system and routed to the wrong baghouse cells. More than 250 pounds of lead spewed into the neighborhood, the company estimated.

Gopher made improvements to the baghouse, including replacing corroded components with stainless steel. The upgrades were completed in 2016 and meant workers no longer had to routinely shake bags loaded with lead, according to interviews and documents.

Other mechanical breakdowns, however, forced workers to do dusty tasks in different areas of the baghouse.

The dust that fell into hoppers after the bags shook was supposed to be pushed by machinery into a pipe, then blended in a tank with water until it looked like chocolate milk.

But the dust jammed along the way. Workers described unclogging it using pitchforks, letting lead-infused dust fall to the ground then shoveling it into con-

tainers.

On other occasions, workers manually collected dust in hoppers when the automated system went down. If no container was there to catch it, the dust formed heaps that workers shoveled or gathered with small loader trucks, sending particles flying.

“It would just rain in your face,” said John Casteel, who worked in the baghouse from 2014 to 2015. “Your whole body would just be covered in lead. It was something to see.”

The dusty work wasn’t limited to the baghouse. Len Vernon hammered the sides of a pipe in the furnace department to shake loose clogged debris when a puff of black smoke, dust and metal engulfed him in July 2014.

In paperwork related to the injury, Vernon wrote that the smoke “got into my respirator through my filters.”

He switched his respirator that night and kept working, but he developed a cough and chest pain. The next day, he couldn’t catch his breath. He went to the hospital, where he stayed for three days, later diagnosed with acute chemical bronchitis, medical records show. The smoke he inhaled and swallowed contained silica, limestone and shredded steel.

Forty-four current and former workers said in interviews that they didn’t always receive air-lead data from the company to inform them of their exposure. When they did, they didn’t know how to interpret the numbers. The workers assumed the protective equipment given to them was strong enough.

Some workers, like Larry Wheeler, said they brought safety concerns to leadership at the plant but feared going

See LEAD, 4W

“It would just rain in your face. Your whole body would just be covered in lead. It was something to see.”

John Casteel, former Gopher Resource worker

Len Vernon was diagnosed with acute chemical bronchitis after he swallowed silica, limestone and shredded steel while working at Gopher Resource.



MARTHA ASENCIO-RHINE | Times

Recapping the investigative findings

Tampa Bay Times journalists spent 18 months investigating what happens at Florida’s lone lead factory, owned by Gopher Resource. The main findings:

- Gopher exposed workers for years to air levels of lead hundreds of times higher than the federal limit.
- Eight out of 10 workers from 2014 to 2018 had enough lead in their blood to put them at risk of increased blood pressure, kidney dysfunction or cardiovascular disease.
- Gopher knew its factory had too much lead dust, but

the company disabled ventilation features that captured fumes and moved slowly to fix faulty mechanical systems. Workers were left vulnerable, wearing respirators that couldn’t protect them when poison levels spiked.

■ Federal rules required that Gopher provide regular checkups, but the company-contracted doctor didn’t tell workers their blood-lead levels put them in danger.

■ Gopher rewarded workers who could keep their blood-lead levels down and punished those who couldn’t.

■ Dust from the plant has been the suspected cause of lead exposure in at least 16 children — the sons and daughters of employees who unwittingly carried the poison home.

■ The Occupational Safety and Health Administration hasn’t inspected the factory for lead-related issues since 2014 and has missed problems in previous visits.

Read Part 1: The Factory
tampabay.com/poisoned

to regulators would jeopardize their jobs.

“You mentioned the name OSHA around there, or you’re contacting them,” said Wheeler, a former baghouse worker, “you might as well say goodbye.”

Gopher did not answer specific questions sent to the company about what it told workers about exposure levels; or about the protective equipment it issues; or about how it reacted when employees raised safety issues with management or with OSHA.

ERRORS ADD UP

Before OSHA inspectors walked through Gopher’s doors, they made mistakes that cost them any real glimpse into day-to-day conditions at the factory.

Instead of conducting surprise visits, regulators on multiple occasions took weeks or longer to nail down a date with the factory’s safety managers, allowing Gopher time to prepare.

The company assigned workers to heavy-duty cleaning before OSHA’s arrival, according to eight current and former employees. Workers described directives going as far as ordering the repainting of the plant’s floor, pre-determining the route to guide inspectors through the factory, and giving explicit instructions that only supervisors talk to inspectors.

Adam Risher worked at the plant for five years in the baghouse, furnace and water treatment areas. He saw regulators come and go. Before one visit, he remembered being directed to help clean the battery breaking area, where the acid-soaked floor was damaged.

Risher said supervisors made it clear the cleaning was for an upcoming OSHA visit.

“The reason why they told us was because they could shut us down,” Risher said. “They could shut us down, and we all won’t have jobs. So when you tell us that, of course we’re all motivated. We all need to work — every one of us had a family to take care of.”

OSHA said inspectors typically don’t warn companies they are coming unless they need to arrange logistics for chemical testing or follow-up meetings, which they’ve done on three occasions with Gopher. It happened after workers complained to the agency about sulfur dioxide gas.

At the plant, sulfur dioxide is released during multiple production steps, including when lead is melted in the furnaces.

The gas stream flows into ducts and through multiple filtering systems, designed to reduce emissions before they travel out of the plant’s 130-foot stack.

In poorly ventilated areas, according to federal health officials, sulfur dioxide exposure can result in asphyxiation. The gas can cause nausea, vomiting and irritation of the eyes, nose, throat and skin as well as lasting respiratory problems.

Workers had tried to get OSHA’s attention in 2011 by filing a complaint, but that went nowhere. So they contacted the agency again.

“We have filed this same complaint already and nothing is being done,” workers wrote. “This has been going on for 4 months and all they care about is making production. Today they actually made it worse by closing off our ventilation because it was affecting other parts of the plant.”

After receiving the second complaint, it took two more months for the inspector, Lizbeth Troche, to visit the plant after back-and-forth scheduling emails with Gopher.

The day after Troche nailed down her inspection date, the plant’s environmental health and safety manager, Angela Fogarty, met with factory managers. She told the group that ventilation issues were supposed to be

Inadequate protection

Gopher Resource workers have been exposed to lead levels that exceed the protection capabilities of their company-issued respirators. From 2007 to 2019, more than a quarter of the air-lead readings from monitors worn by workers in the furnace department, for instance, were higher than what the most commonly issued respirator made by 3M could guard against, the *Times* found.



Type: Air-purifying respirator
Model: 3M 6000 series full face respirator

Estimated cost: \$150
Lead protection level: Up to 2,500 µg/m³

How it works: This standard respirator relies on the user’s breathing to pull contaminants

through a replaceable filter. Filters must be regularly replaced. It is the most commonly used device at Gopher.

How many use it?: 153 employees at Gopher were assigned this model, according to a September 2019 list.

Type: Powered air-purifying respirator

Model: Sundström SR 500/200

Estimated cost: \$1,500

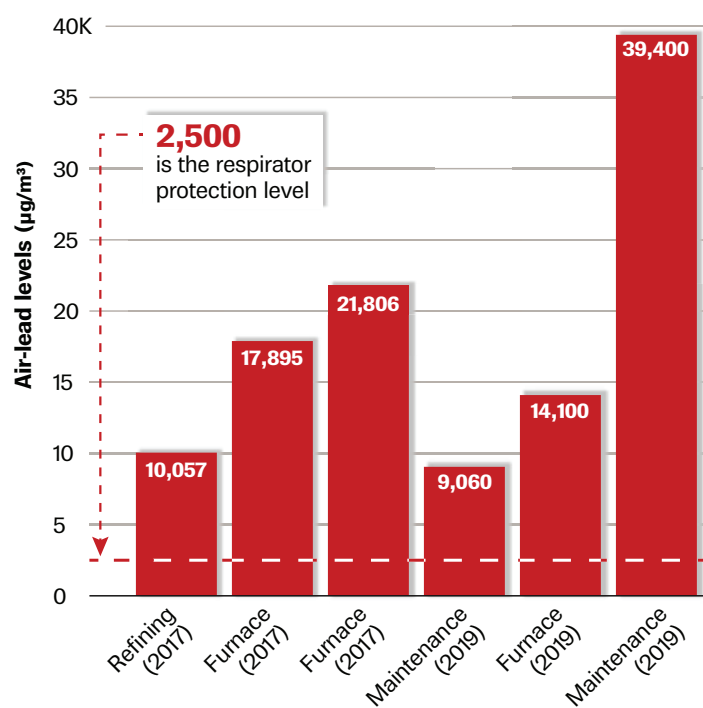
Lead protection level: Up to 50,000 µg/m³

How it works: Powered respirators use a small motor typically worn on the belt to force air through a filter. Filters and batteries must be regularly replaced.

How many use it?: Four employees at Gopher were assigned this model, according to the September 2019 list.

Exposure levels

This chart shows air-lead readings from furnace, refining and maintenance workers at Gopher compared to the protection level of their respirators. Each bar represents one worker’s exposure.



Sources: Gopher internal records, Times research

PAUL ALEXANDER | Times

addressed March 5, nine days before the OSHA inspector was scheduled to show up, according to meeting minutes. The need for supervisors to have more training about sulfur dioxide was also discussed.

On March 14, Troche came to the factory. Two workers were hooked up to air monitors to gather samples.

One of them was Ricky Bartels, who was well aware of the sulfur dioxide problem. The gas caused his eyes and nostrils to burn and his throat to close. A prickly red rash spread across his skin, leaving a sensation of pins and needles.

Bartels said the gas was so overwhelming, it seeped into a computer room, where workers had to aim a fan to blow it out. He said mechanical problems had allowed the gas to build at different points over months.

But when Troche arrived, Bartels said, a plant supervisor told him they were going to measure a different chemical, sulfuric acid.

“They’re worried about this?” he remembered commenting to a co-worker. “They need to be worried about the f-----g SO₂ (sulfur dioxide) that’s gassing us out.”

See LEAD, 5W

Gopher at a glance

Headquarters:

Eagan, Minnesota

CEO: Brian Leen, hired in 2019

History: Gopher operates two lead battery recycling factories in the country, one in Minnesota and a second in Tampa. It bought the east Tampa factory in 2006. Gopher is classified as a secondary lead smelter because it recycles lead. It’s the only company of its kind operating in Florida.

What it does: The Tampa location recycles about 50,000 car batteries a day, extracting the lead, melting it, purifying it and forging it into new blocks that have been sold to ammunition suppliers, battery makers and the U.S. military.

Employees: About 600 in its two locations, with more than 300 in Tampa.

Revenues: As a private company, it doesn’t have to disclose this, but estimates are that it generates hundreds of millions of dollars in annual revenue.

Ownership: Gopher is a private company founded in 1946 by Irving Kutoff. It operated as a family business for decades. It was bought in 2018 by Energy Capital Partners, a private equity firm based in New Jersey.

The history of Florida’s only lead smelter

1953: Gulf Coast Lead opens its doors in Temple Terrace, where it operates for a decade before moving to East Jewel Avenue in Tampa. The company later changes its name to Gulf Coast Recycling.

1978: The Occupational Safety and Health Administration adopts safety rules saying workers must be removed from lead-contaminated areas if their blood-lead level exceeds 60 micrograms per deciliter. That amount is 12 times what health experts now consider elevated.

2004: State health officials flag Gulf Coast as a significant source of child lead exposure. Years earlier, children at a nearby trailer park had elevated blood-lead levels. Children of workers also were found with lead in their blood.

2006: Gopher Resource acquires Gulf Coast, through its subsidiary company, Envirofocus Technologies LLC.

2008: Updated federal programs on lead safety call for regulators to inspect any company where a single worker has a blood-lead level of 25 micrograms per deciliter or higher. More than 450 Gopher workers tested that high over a recent four-year period, according to company data obtained by the *Times*. The U.S. Environmental Protection Agency, meanwhile, tightens its air-quality rules. The new rule drops the amount of lead allowed in the community’s air from 1.5 to .15 micrograms per cubic meter.

2010: Gopher begins a modernization of its Tampa plant, investing more than \$140 million to make the factory safer. OSHA fines the company \$750 for ventilation problems and failing to post warning signs on the danger of lead. Regulators drop violations related to the overexposure of workers and lead dust as part of a settlement.

2012: Gopher completes construction of its new fully enclosed plant in Tampa. New ventilation and pollution control systems are designed to protect workers and the community. But mechanical problems occur before the new plant is even finished and air quality for workers inside actually starts to get worse in the coming years, the *Times* found. OSHA receives a complaint about high levels of sulfur dioxide, a gas that is emitted as exhaust during lead production. It sends an inspector. But regulators investigate the wrong chemical.

2013: The average air-lead readings at the furnace department in Tampa are six times higher than Gopher’s plant in Minnesota. A worker collapses at the Tampa plant. Exposure to sulfur dioxide is the suspected cause.

2014: OSHA receives a referral saying workers aren’t issued proper equipment and are being exposed to lead at high levels. The agency sends an inspector but issues no citations. Internal documents show the company had months earlier recorded soaring levels of lead and cadmium, including a worker exposed to an air-lead concentration of 172,655 micrograms per cubic meter. It is the last time OSHA has inspected the factory for lead contamination.

2015: An air-monitoring reading captures a level above 200,000 micrograms of lead per cubic meter, which is beyond the level federal officials consider potentially life-threatening. The U.S. Centers for Disease Control and Prevention updates its definition of an elevated blood-lead level for adults from 10 micrograms per deciliter to 5. The average American adult has a blood-lead level below 1.

2016: Workers complain again about sulfur dioxide. This time, OSHA sends an inspector who looks at the correct chemical. But the inspector only tests outside the plant. Problems had been noted inside the plant.

2017: A consultant report finds severe clogging of the Gopher ventilation system. The company had removed exhaust hoods that would have captured lead fumes. Another consultant report finds a third of furnace and refinery workers tested during an exposure study had respirators that weren’t strong enough. An email bulletin is sent to Gopher supervisors warning of life-threatening levels of sulfur dioxide. No OSHA inspection occurs this year.

2018: Another worker loses consciousness after inhaling chemicals. No OSHA inspection occurs this year.

2019: Internal air readings at the Tampa plant show air quality remains hundreds of times higher than the federal limit. At least eight workers are overexposed to lead, records show. One worker’s exposure level is 1,476 percent higher than his respirator can handle. A respirator assignment list later shows that only a handful of workers had a more powerful respirator at the time. No OSHA inspection occurs this year.

2020: Photos show plumes of dust escaping the furnace. Another worker is injured, burning him to the bone. No OSHA inspection occurs this year.

2021: Photos from February show a partially-clogged ventilation pipe. At press time, no OSHA inspection had occurred.



Photo from a factory worker

Factory equipment is covered in dust laced with lead in 2014, the same year that OSHA last inspected for lead issues.



MARTHA ASENCIO-RHINE | Times

Ricky Bartels dealt with the effects of sulfur dioxide exposure in 2012 while working at Gopher. So it surprised him when an OSHA inspector instead wanted to test for sulfuric acid, the wrong chemical.

4.1 Conclusions

HRP Associates, Inc. (HRP) performed a personal exposure survey at the Gopher Resource facility located in Tampa, Florida. The survey was performed to evaluate employee exposure levels to constituents of concern potentially released during the lead smelting and refining operations. Based upon our findings to date, it was determined that the operating conditions at the time of the sampling are unsatisfactory with applicable respiratory requirements at a number of the sampled locations. It is therefore in the opinion of HRP that further air monitoring investigations are warranted at this time, in addition to a further evaluation of appropriate personal protective equipment (PPE) levels.

Consultants hired by Gopher in 2017 determined that air-lead levels exceeded the protection capability of respirators commonly in use. The consultants identified violations that OSHA missed because regulators hadn't been there in a year.

Bartels, who left the factory in 2013, said he didn't say anything to supervisors or the inspector because he needed his job.

OSHA told the *Times* the inspector focused on sulfuric acid based on the agency's understanding of how the production process at Gopher worked.

Three industrial hygienists said if workers were complaining about sulfur dioxide, it didn't make sense for the inspector to test for acid.

"That was not the right choice," said Rachael Jones, an industrial hygienist and professor at the University of Utah. "You wouldn't measure one, when you wanted to find the other."

Troche, who still works at OSHA, did not respond to multiple requests for comment. In an April 9, 2012 letter, she wrote to the worker who had complained: "No levels of sulfuric acid were detected. No citations were issued."

The inspector sampled the wrong chemical, then closed the case.

A year later, Teddy Ebanks Jr., the former Marine, collapsed. Sulfur dioxide, the suspected cause.

Months after that, Clemente, the contracted baghouse worker, passed out. Sulfur dioxide, again the suspected cause.

When OSHA returned in December 2014 to investigate lead exposure after a complaint, the agency made more critical mistakes.

OSHA inspector Olja Correa toured the factory with the company's safety officers and viewed a year's worth of air-monitoring data, notes show.

At the time, tests indicated the company regularly had air-lead readings dozens and hundreds of times above the federal limit. In the furnace that year, more than a third of the readings were too high for the respirator assigned to most workers.

Just months earlier, in June 2014, the amount of lead in the air had reached life-threatening levels in the baghouse. Cadmium, a heavy metal linked to lung and prostate cancer, was recorded hundreds of times above the federal limit.

Correa's report was so sparse, it's unclear whether she toured the baghouse during her walk-through, and OSHA would not say whether she did. Her report only says that she "observed the battery recycling process."

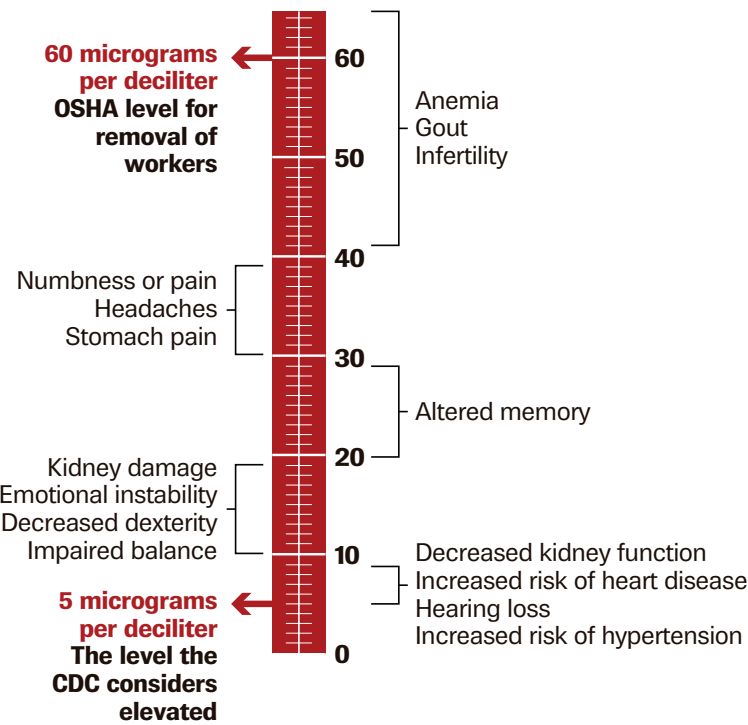
Correa gave Gopher one week before she returned to conduct her own air monitoring.

When Correa came back, she attached small monitoring devices to the uniforms of at least three employees. The workers were selected by company managers, according to an employee with direct knowledge of the visit. One handpicked worker who was supposed to represent the conditions inside Gopher's battery-breaking process spent his days working outdoors, where conditions were safer.

OSHA's inspection manual says inspectors are supposed to test workers who

Health risks of lead in the blood

Lead is a neurotoxin. Sustained exposure over time can have serious health effects. These are some of the levels where risks have been documented that fall well below the OSHA level to remove a worker who has been exposed.



Sources: Times research

PAUL ALEXANDER | Times

have the highest exposure. The amounts Correa measured weren't close to what Gopher had logged in its own records.

Federal rules allow workers to be exposed to 50 micrograms of lead per cubic meter of air averaged over an eight-hour shift.

The highest air-lead level Correa recorded during the federal inspection was 738 micrograms per cubic meter in the furnace area. That was above the federal limit, but 10 days before, the plant's internal data showed readings nearly 20 times higher.

Correa did not assess the plant's ventilation system, according to records.

The inspector and her supervisors decided to issue no citations, noting in their report that Gopher was trying to control lead exposures.

Correa told the *Times* she could not remember details about her Gopher visit, saying she has done hundreds of inspections for the agency.

Hours before OSHA closed the case, on March 4, 2015, company data showed the amount of lead in the plant's baghouse once more surpassed life-threatening levels. The concentration was measured at more than 200,000 micrograms per cubic meter.

Regulators haven't measured lead at the factory again.

They cited the company in 2015 for an amputation injury, after a worker's fin-

gertip was crushed. They conducted a forklift safety inspection that same year and issued no fine.

In May 2016, a worker filed another complaint to OSHA about sulfur dioxide levels. The employee said workers were suffering from headaches and that the system to control sulfur emissions had been shut down for repairs. The plant was running and producing lead anyway, the complaint said.

The employee didn't specify where the high exposures were happening but said the sulfur smell was strong outside, even from 200 feet away.

The next month, OSHA inspector Linette Pruna-Padilla visited the plant to perform air monitoring. But she limited her testing to outside, writing that a smokestack was the only possible source of emissions.

Elevated sulfur dioxide levels had occurred inside the factory in the baghouse and water treatment area, according to interviews and company documents.

Pruna-Padilla skipped them both.

The sulfur dioxide levels in the outside air were below the federal limit, she determined. No citations were issued.

Pruna-Padilla declined to answer questions when a reporter showed up at her door.

That was the last worker complaint **See LEAD, 6W**

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Reduced attention span

Cognitive disabilities

Debilitating headaches

Debilitating headaches

These are among the factors associated with high levels of lead exposure. Please contact us if you are interested in talking.

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For more information, contact Annica Keeler, development and community relations director, at akeeler@tampabay.com or 727-892-2264.

5. Gopher has made several alterations to the Hygiene dust collection systems since they were installed in 2009 (see bullet items below). The alterations have made the exhaust hoods less effective and have degraded the airflow balance through the ductwork.

- The exhaust hood over the Blast Furnace lead tapping station has been removed.
- The exhaust hoods for the Launderers at the Reverberatory Furnace have been removed.

Consultants told Gopher in 2017 that the factory had made the ventilation system less efficient and less effective by disconnecting vent hoods. OSHA didn't inspect the factory that year.

the agency investigated. And that inspection, five years ago, was the last time OSHA sent anyone to Gopher.

MISSING IN ACTION

OSHA has missed hundreds of opportunities to inspect Gopher's factory.

Under a special program, developed in 2008 to strengthen worker protections, the agency said regulators would inspect workplaces where they learned a single worker had a blood-lead level of 25 micrograms per deciliter or higher. Those kinds of levels have been linked to serious health problems.

More than 450 blood-lead tests of workers at Gopher hit that level from 2014 to 2018, according to data analyzed by the *Times*.

Len Vernon, the furnace worker, was among them when he drove a loader truck with an un-enclosed cab, scooping lead from a storage area and dropping it into a container to feed the furnace. A plume of dust would blow back at him as the lead clattered into the hopper.

"You are exposed to dust all the time," said Vernon, who recorded a blood-lead test above 30, his highest at Gopher, in 2017.

Anil Eglais' blood-lead level exceeded 30 micrograms per deciliter while he worked in the plant's refinery, where molten lead is purified in kettles.

David Hill Jr. averaged a blood-lead level of 25 over his three-decade career and had tests surpass 30 while he worked in some of the dustier parts of the factory.

OSHA said the agency didn't know about any of the tests over 25. And so, more than 450 instances when the agency should have inspected the plant came and went.

Since OSHA regulators have been absent from Gopher, rule violations and mechanical problems that put employees in danger piled up at the factory month after month. Gopher's consultants found problems that OSHA didn't.

In April 2017, Gopher hired consultants to assess its ventilation system. They found parts of the system severely degraded and clogged. They noted that Gopher had removed exhaust hoods designed to capture lead fumes. Other hoods were too small. Both issues let emissions spill around workers.

In their report, the consultants included a picture of metal-laced gases billowing from the furnace.

That June, an email bulletin went to dozens of Gopher supervisors after the company discovered life-threatening levels of sulfur dioxide in the water treatment department. The fumes shot up for more than three hours. The gas reached levels more than four times the federal limit in the department's computer room.

The levels surpassed the protection factor of the workers' respirators, the email said. An ongoing, repeated mechanical malfunction was to blame.

That August, workers in the furnace and refinery departments were overexposed to lead. The company had hired consultants to evaluate employee exposures and found that a third of the 40 furnace and refinery workers who had been tested wore respirators that weren't good enough.

One worker encountered an air-lead concentration more than eight times what his respirator could guard against. The level was 436 times the federal limit for lead in the air.

"Obviously, if OSHA would have come in and done that monitoring, it would have been an automatic citation," said Jerry McCaslin, who chairs a committee of the American Industrial Hygiene Association focused on indoor air quality.

McCaslin, who works at a foundry in Washington state, said the exposures were so high, they could have warranted OSHA shutting down operations while fixes were made.

The consultants, who did the monitoring for the company, told Gopher to ensure workers had proper equipment for the conditions they faced.

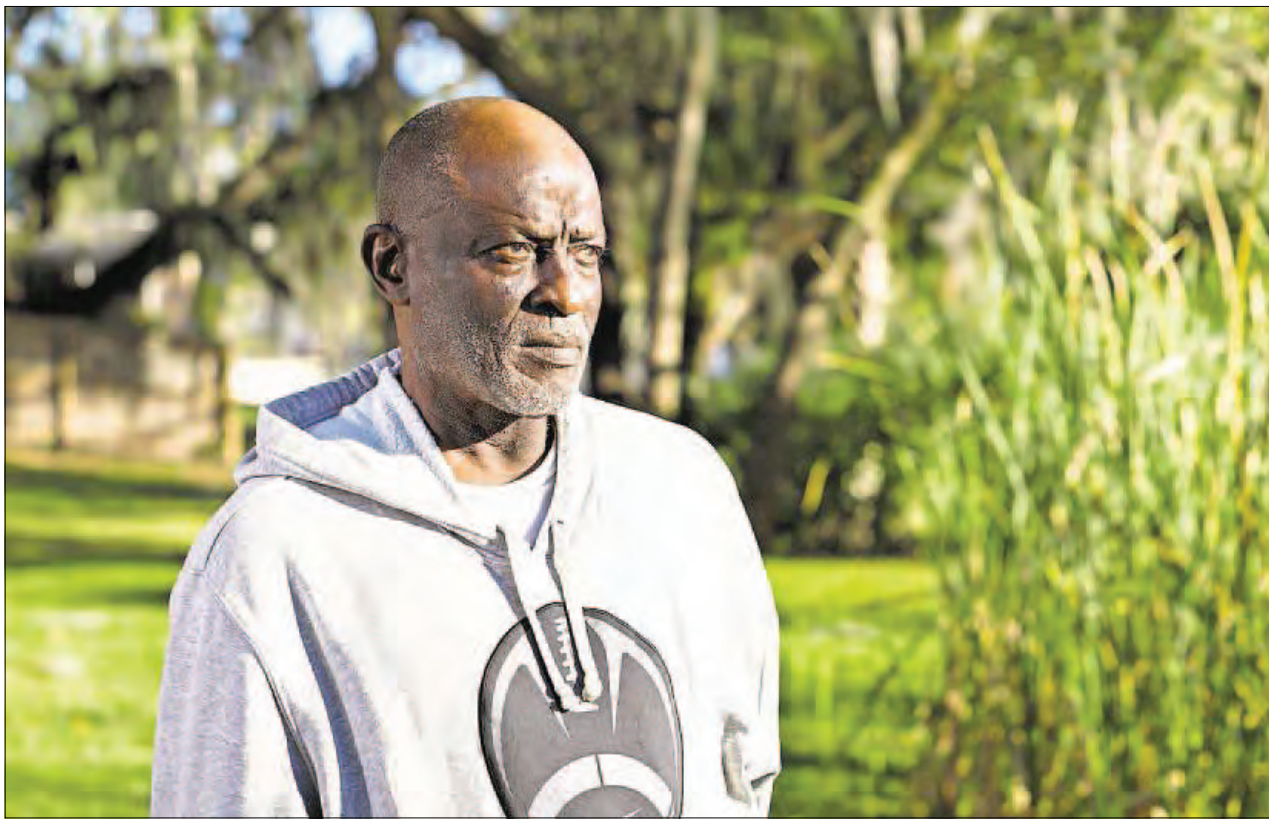
That November, life-threatening levels of sulfur dioxide were again detected in the water treatment area. The company evacuated contractors. Under a policy developed months earlier for when gas levels spiked, employees could go into the space for a limited time wearing air-tank respirators.

That same month, a different set of consultants found too much lead dust piled in the factory.

In the furnace department, more than 40 percent of air-lead tests exceeded the protection level for respirators assigned to most workers in 2017, a *Times* analysis shows.

The next year, more hazards mounted.

In April 2018, while working in the



MARTHA ASECIO-RHINE | Times

Anil Eglais had a blood-lead level exceeding 30 micrograms per deciliter while working at Gopher Resource. His levels should have triggered an OSHA inspection. But that never happened.



Photo from a factory worker

A ventilation pipe is partially clogged by dust in 2021. Workers say this kind of obstruction can impede the system, and the pipes have rarely been cleaned.

water treatment area, an employee lost consciousness after inhaling chemicals, according to an injury log.

But the specific cause, and chemical name, were not recorded.

Until that August, the lab Gopher used to test air quality analyzed the results incorrectly, for soil instead of air. Gopher didn't notice for six months, even though keeping quarterly data is required by OSHA.

That fall, once air-lead data was properly analyzed again, a reading was measured hundreds of times above the federal limit in the furnace department.

More problems were found in 2019.

In March, sulfur dioxide and carbon monoxide reached life-threatening levels in the furnace department, according to company data.

That summer, Gopher found at least eight workers — in the furnace, refinery and maintenance departments — had been exposed to air-lead levels beyond the protection capability of their respirators, according to letters the company wrote. One worker's exposure was 15 times higher than the maximum protection of his device.

A September 2019 list obtained by the *Times* shows none of the overexposed workers had been assigned a better respi-

rator at that time. Of the more than 200 workers listed, four had more powerful respirators that would protect against high levels of lead. The rest didn't.

Snapshots taken by workers inside the plant from 2019 capture lead-laced dust blanketing the floor in the furnace department. Video shows fumes surging from the furnace and around a loader truck driver.

In the furnace department, 46 percent of air samples exceeded the protection of the respirators assigned to most workers in 2019 — the highest percentage since OSHA had last been at the factory, the *Times* found.

Pictures from 2020 show dust collecting atop pipes and fumes from the furnace creating a thick fog across the work area to the point of limiting visibility.

A photo from earlier this year depicts lead-laced dust clogging part of a ventilation pipe like plaque obstructing an artery. Workers say the pipes running from one of the furnaces had rarely been cleaned and the dust accumulation impeded the system.

In the 1,767 days since OSHA's last visit, the company and consultants it hired documented more than two dozen possible violations — on top of the hundreds of high blood-lead tests that warranted inspection. OSHA knew about none of them.



VIDEO

View Gopher from the vantage point of a former worker at bit.ly/gopherworker

ONLINE

More photos, videos and stories from this series at tampabay.com/poisoned

PERSPECTIVE

OSHA inspectors should get the lead out.
Times editorial, 2P

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