Lead-laced dust cascades inside Gopher Resource in Tampa, the only lead smelter in the state of Florida. The video was taken in 2018. [Factory video taken by Gopher worker]

POISONED

Part 1: THE FACTORY

Hundreds of workers at a Tampa lead smelter have been exposed to dangerous levels of the neurotoxin. The consequences have been profound.

By COREY G. JOHNSON, REBECCA WOOLINGTON and ELI MURRAY
Times Staff Writers

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Plumes of dust, laced with lead, blew across the factory like a sandstorm. The poison hangs so thick in the air, sometimes the only thing visible is the warm, orange glow from the furnace.

Workers, hundreds of them, sweat through 12-hour shifts at Gopher Resource in Tampa. They extract lead from used car batteries, melt it down and turn it into blocks of metal to resell.

Eric Autery, 43, came to the plant in the summer of 2017 looking for a fresh start. An Army vet from Virginia, he dodged bullets and mine explosions in Afghanistan and Iraq but faced new dangers inside Florida's lone lead smelter.

He worked in the furnace department, shimmying importers of the top of gleaming, molten lead. He moved fast in suffocating heat against a steady mist of fumes. He'd lost his respirator slide on his face, the seal separating from his pooling sweat. He'd smell the metallic stench, like old coins, creeping in.

His complexion turned gray. His body felt heavy. His head pounded.

The level of lead in his blood shot up weeks after he started. Co-workers and supervisors told him he needed to wash better before breaks, or after his shift.

But the poison was bound to enter his body. The amount of lead in the air was seven times what Autery's company-issued respirator could handle.

Autery is among hundreds of workers at Gopher who have been exposed to extreme amounts of lead.

They've inhaled it, been burned by it, been covered in it.

And no one has stopped it.

Tampa Bay Times reporters spent 18 months examining thousands of pages of regulatory reports and company documents, including data tracking the amount of lead in the air and in workers' blood. They interviewed more than 60 current and former workers, 20 of whom shared their medical records.

The following investigative findings will be detailed in a series of stories starting today:

- Gopher exposed workers for years to levels of lead in the air that were hundreds of times higher than the federal limit. At times, the concentration was considered life-threatening. Workers described regular tasks that left them caked with dust, as though they'd been dusted in powdered sugar.
- Eight out of 20 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. In the past five years, at least 14 current and former workers have had heart attacks or strokes, some after working in the most contaminated areas of the plant. One employee spent more than three decades around the poison before dying of heart and kidney disease at 56.
- 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. In 2019, one employee faced an air-lead concentration 15 times beyond what his respirator could guard against.
- 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. When employees had health problems that could be tied to lead exposure, he cleared them to work.
- Gopher rewarded employees with bonuses if they kept the amount of lead in their blood down and punished those who couldn't, a practice that alarmed medical experts and ethicists. Workers took desperate measures to strip metals from their bodies, including undergoing dangerous medical procedures. In the most extreme cases, some donated contaminated blood.
- 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 in their cars or on the soles of their shoes. A baby girl tested so high for the neurotoxin that her pediatrician recommended she be monitored weekly.
- Federal Occupational Safety and Health Administration regulators haven't inspected the factory for lead contamination since 2014 and missed critical problems in previous visits. Even when top regional safety officials ordered increased inspections of lead businesses across the Southeast, no one came to the only place in Florida that produces the metal.

Company officials would not agree to an interview. Gopher's Chief Operating Officer Eric Robinson issued a statement to the *Times* and answered some questions in writing.

FRONTLINE

This story is part of a collaboration with **FRONTLINE**, the PBS series. The story is a joint reporting initiative, which is funded by the John S. and James L. Knight Foundation and the Corporation for Public Broadcasting.

He said Gopher has cut average employee blood-lead levels in half since acquiring the plant in 2006 and has invested $140 million to make the factory safer. He also said the company devotes thousands of hours a year to safety training.

"Our people and the communities we serve are the most important part of our work, and that is why our overriding core value is to protect people and communities," Robinson said. "We go to significant lengths to keep our employees safe."

In the last decade, more than a third of the lead battery-recycling factories in the United States have gone out of business, including one in South Carolina that shut down this week. Only 20 such factories remain. Minnesota-based Gopher Resource owns two of them.

The company, founded 75 years ago, generates hundreds of millions in annual revenue, according to one financial analyst. Its clients have included the U.S. military, battery makers and ammunition suppliers.

More than 300 people work at the Tampa location. Many are Black or immigrants. Some came to the plant without a diploma or straight from high school, others as they restarted their lives after arrests or time in prison.

The job offered roughly $20 an hour with sizable bonuses — more money than some workers believed their circumstances would allow.

The factory is about 6 miles east of downtown Tampa, next to a CSX rail yard and a half mile from Kendy Elementary. Its smokestacks tower above the community of small residential homes, auto-repair shops and places of worship.

Gopher touts green manufacturing that helps keep 13 million batteries out of landfills each year. But over the last decade, the plant has been a key reason why Hillsborough has had more adult lead poisoning cases than any other county in Florida, according to health department reports.

Since 2010, the county has recorded more than 3,400 lead poisoning cases among children and adults, surpassing even Miami-Dade County, which has almost twice as many residents.

Lead wreaks havoc on nearly every system in the body. The health effects are so wide-ranging, they can be blamed entirely on other causes.

Gopher workers have no definitive way to identify if any of their health problems were caused by lead. But many medical conditions could be made worse by repeated and prolonged exposure, especially at the levels found inside the plant.

Ten medical and industrial experts told the *Times* that Gopher clearly needed to lower the contamination levels — some so high, they're typically seen only in developing countries.

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Dr. Ana Navas-Acien, an expert in heavy metal toxicity at Columbia University, called worker exposures at Gopher "totally unacceptable."

Inside the factory, the sight of dust alone could be unsettling.

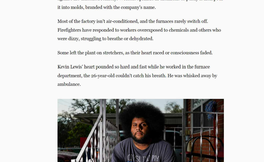
Autery, the Army vet, spent just over a year at Gopher. He remembered the first time he walked inside.

"What's all this dust here on the ground?" Autery asked the worker who showed him around.

Lead particles.

"What?" Autery responded. "This isn't dirt?"

No, it's lead.



Eric Autery saw his blood-lead levels jump soon after he began work at Gopher. [Matthew Lester/Times]

Inside the dust storm

Production runs day and night. Dozens of workers clock in at 7 a.m. or 7 p.m. A tangle of pipes, hissing hoses and clanking conveyor belts swarm them in a searing heat.

They feed used car batteries into machinery that crushes them, drains the acid and separates the lead from plastic shells. The lead is scooped with loader trucks and fed into furnaces that burn at around 1,500 degrees. The metal liquefies there.

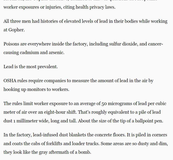
It's not unusual for water to hit liquid lead, triggering violent explosions that send molten metal flying. Scars from lead splashes are so common workers refer to them as "tattoos" and consider them a rite of passage.

The lead slides down chutes, making its way into kettles, where it glows like lava against the darkened refinery. Workers sprinkle in chemicals to purify it then pour it into molds, branded with the company's name.

Most of the factory isn't air-conditioned, and the furnaces rarely switch off. Firefighters have responded to workers overexposed to chemicals and others who were dizzy, struggling to breathe or dehydrated.

Some left the plant on stretchers, as their heart raced or nauseousness faded.

Kevin Lewis' heart pounded so hard and fast while he worked in the furnace department, the 26-year-old couldn't catch his breath. He was whisked away by ambulance.



Kevin Lewis, a former furnace worker at Gopher, left the factory in an ambulance after his heart started pounding. [Matthew Lester/Times]

Larry Wheeler became disoriented and fainted while working in one of the dustier areas of the plant. An ambulance rushed the 50-year-old to the hospital, where medical staff told him to limit his exposure to lead.

James Pitts, 49, blacked out with an erratic heart rate as he walked from the locker room to start his maintenance shift. He was taken by paramedics to the hospital.

Robinson, the Gopher executive, declined to answer questions about specific worker exposures or injuries, citing health privacy laws.

All three men had histories of elevated levels of lead in their bodies while working at Gopher.

Poisons are everywhere inside the factory, including sulfur dioxide, and cancer-causing cadmium and arsenic.

Lead is the most prevalent.

OSHA rules require companies to measure the amount of lead in the air by hooking up monitors to workers.

The rules limit worker exposure to an average of 50 micrograms of lead per cubic meter of air over an eight-hour shift. That's roughly equivalent to a pile of lead dust 1 millimeter wide, long and tall. About the size of the tip of a ballpoint pen.

In the factory, lead-infused dust blankets the concrete floors. It is piled in corners and coats the cabs of forklifts and loader trucks. Some areas are so dusty and dim, they look like the gray aftermath of a bomb.

The company built a new plant on the property in 2012 and announced it would undergoing production while operating more safely. A sophisticated ventilation

system was supposed to capture the dangerous dust. But it has not worked properly, according to interviews and internal studies from 2014, 2015 and 2017.

As a result, lead in the plant's air routinely has been hundreds of times above the federal limit, lab reports show.

The *Times* obtained and analyzed more than 500 air samples collected by the company from monitors attached to workers from 2007 to 2019. Lead levels exceeded the protection capabilities of the respirators issued to most workers 18 percent of the time plantwide and 26 percent of the time in the furnace department.

Gopher leaders know lower numbers were achievable. They had to look no further than their other plant in Eagan, Minn.

Tampa employees who traveled to Eagan for meetings or training sessions were stunned by what they saw. The floors were so clean, they joked, you could eat off them.

From 2013 to 2014, the average air-lead reading in Tampa's furnace department was six times higher than Eagan's, according to data submitted to Minnesota regulators and other company records.

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The highest air reading anywhere inside the Eagan factory was 2,537 micrograms of lead per cubic meter. That's dozens of times above the federal limit but nowhere near Tampa's highest reading. In Tampa, it was 78,750 — or more than 1,500 times the federal limit.

In June 2014, a Tampa employee was exposed to 174,653 micrograms of lead per cubic meter while working in the baghouse, where dust gets roasted from other parts of the plant. The next year, an air monitor recorded a lead concentration surpassing 200,000.

These readings were well above the level federal officials consider life-threatening.

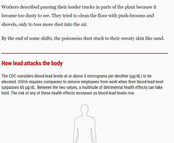
Video taken by a worker from the baghouse in 2014 showed dust billowing through a pipe, a gray-brown cloud painting a haze across the workspace. Equipment buzzed and whirled as workers drove small forklift trucks, without windshields.

Workers described passing their loader trucks in parts of the plant because it became too dusty to see. They tried to clean the floor with push-brooms and shovels, only to toss more dust into the air.

By the end of some shifts, the poisonous dust stuck to their sweaty skin like sand.

How lead attacks the body

The CDC considers blood-lead levels at or above 5 micrograms per decliter (5µg/dL) to be elevated. OSHA requires companies to remove employees from work when their blood-lead level surpasses 60 µg/dL. Between the two values, a multitude of detrimental health effects can take hold. The risk of any of these health effects increases as blood-lead levels rise.



source: Health Effects of Low-Level Lead, Potential Health Risks to DOE Firing-Range Personnel from Recurrent Lead Exposure, Medical Guidelines for the Lead-Exposed Worker.

A prevalent poison

Gopher has repeatedly violated OSHA's regulations on air-lead levels and respirators. But the company in recent years hasn't surpassed the federal agency's rules for the maximum amount of lead allowed inside a worker's body.

That's because OSHA permits workers to have as much as 60 micrograms of lead per decliter of blood, a figure established 45 years ago. Many health officials say the OSHA standard is out of touch with modern science, which for decades has established health effects from lead at far lower levels.

The Centers for Disease Control and Prevention says blood-lead levels of 5 micrograms per decliter and higher count as elevated. But health officials have recognized that damage from lead, like kidney dysfunction, can occur even below that amount.

The *Times* obtained and analyzed blood-lead tests of more than 500 Gopher employees from 2014 to 2018. Nearly every worker was exposed to enough of the toxic metal to be at risk of serious health problems.

Nine out of every 10 workers averaged levels of lead in their blood higher than 5 micrograms per decliter.

Elevated blood-lead levels at Gopher

This is the average blood-lead level for every employee measured in 2016 in micrograms per decliter. All lead lead in their blood.

Eight out of 10 workers averaged levels that put them at risk of increased blood pressure, kidney injury or cardiovascular disease.

In some of the dustiest areas of the plant, workers had the most metal in their blood. Four of every 10 furnace workers averaged a blood-lead level of at least 20 micrograms per decliter from 2014 to 2016. That's quadruple the level the CDC considers elevated.

Lead doesn't stay in the blood long. Some of the metal is excreted in urine or settles into tissues. The rest is mistaken by the body for calcium and absorbed into the skeleton.

A single exposure to low or moderate amounts of lead may not cause lasting damage. But chronic exposure compounds with time and can result in irreversible health effects.

The lead collects in larger and larger bone deposits, creating a bank of poison that can re-enter the bloodstream and attack the body's organs for decades.

The *Times* shared its findings with 10 medical experts. All of them said workers in the plant had blood-lead levels high enough to experience short- and long-term health consequences. They added that lead exposure could exacerbate issues like hypertension or decreased kidney function.

Proving a specific ailment was caused solely by lead exposure is difficult. Diseases often develop because of a combination of risk factors, like age, genetics or lifestyle.

The *Times* reviewed company medical records of 16 former workers, who spent from one year to 33 years at the plant and left in the last decade. Seven had at least one lab result indicating possible kidney damage. Eleven had blood tests just before they were hired, and all 11 saw the amount of metal in their blood jump within weeks of starting at the factory.

Plantwide, at least 14 current and former workers had heart attacks, cardiac arrests or strokes in the last five years, according to interviews and medical records. All were younger than 60. Three, like Ric Hutton, were under 45.

It's rare to have a heart attack at Hattan's age. Fewer than 1 percent of people younger than 45 have had one, according to federal data.

Hattan, a former maintenance worker, had blood-lead levels hovering in the mid-teens. He described suffering two heart attacks in his early 40s, leaving him so afraid of stressing his heart he hesitated to pick up his 3-year-old.

"I'm too young to be having a heart attack," Hattan remembered thinking. "I'm too strong."

Breaking down

Prosper Dumeus started working at the factory in the fall of 1985. It was then a small, family-owned lead smelter called Gulf Coast Lead. He was 23 years old, new to Florida from Haiti, and assigned to the furnace department.

The old factory was not fully enclosed. Breezes swept through the work area, cooling the workers and pushing lead dust outside. The plant had a single furnace and produced a fraction of the metal it does today. Workers took off respirators to talk. They'd eat and smoke cigarettes beside the furnace.

Prosper Dumeus.

Dumeus' formal education had ended in grade school, but as the years passed, he built a vast knowledge of the machinery and its quirks. When something went wrong, Dumeus could diagnose problems better than many mechanics, his co-workers remembered.

Some hazards were obvious. An explosion splattered molten lead on Dumeus in the fall of 1989, burning his left leg and eye. In 2006, hot liquid lead slipped into his boot and scorched his foot.

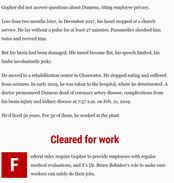
The burns troubled Dumeus' sister, Madelaine. She implored her brother to quit.

"I'm telling you," she told her brother. "This job is killing you."

But he loved being there. He talked about it with the same adoration as dominoes in the park, fishing trips and Bob Marley songs. He bought a cottage-style home shaded by thick palms within a mile of the plant.

The longer Dumeus worked around lead, however, the more his body broke down. Medical records and lab tests from the late 1990s show Dumeus consistently had blood-lead levels five, six, seven and even eight times what is now considered elevated.

His heart problems began around that time, he noted in a medical form that is part of his records. He was in his late 30s.


Madelaine Dumeus begged her brother to quit his job at Gopher. He died in February 2019 of multiple ailments, and doctors say lead exposure likely contributed to his health problems. (MICHAEL JAMES | Times)

Over the next decade, he underwent bypass and valve replacement surgeries. He developed leg ulcers and blood clots. His heart strained as it beat.

Several factors put Dumeus at risk of heart problems: hypertension, smoking, too many fats in his blood. He was diagnosed with coronary artery disease, the most common heart condition in America.

It's also the form of heart disease most commonly associated with lead exposure. Medical research has linked lead to cardiovascular effects in people with low levels in their blood, more fractions of Dumeus'.

The highest concentration of metal in his blood, 45 micrograms per decliter, was measured in June 2006, just over a month after Gopher bought the plant. At the time, Dumeus were a company-issued respirator that covered only the lower half of his face. Weeks later, company data shows, the amount of lead in the air surpassed the mask's protection capability by roughly five times over.

In his early 70s, his lungs had the strength doctors would expect to see in a 100-year-old man.

The company last measured the metal in his blood in March 2017. Because lead stays in the blood for such a short period, the tests generally show recent exposure and not what has built in the body over time.

The *Times* determined the amount of poison lodged in Dumeus' bones by analyzing 18[illegible] blood tests that he took over his career. The calculation estimated a range of lead stored in 1[illegible] bones, then multiplied the result based on an estimated weight of the skeleton.

The analysis showed bone exposures add up. Dumeus' average blood-lead level of 16 micrograms per decliter ballooned to an estimated 420,000 to 840,000 micrograms of lead in his bones.

No amount of lead in bone is considered safe.

Calculating the bone-body burden of lead

Prosper Dumeus worked at the factory for 32 years. His blood-lead level was tested at least 180 times.

Two doctors reviewed the *Times'* analysis and confirmed the findings. Dr. Brian Schwartz, an expert in chronic lead exposure at Johns Hopkins University, said Dumeus' levels could be likened to ingesting a daily pill for years filled with poison.

By the mid-1990s, the nanotoxin had taken a significant hold in his body, the analysis found.

In the winter of 2017, Dumeus worked his last shift.

That March, he underwent open-heart surgery. After months of difficult recovery, his personal doctor said he could return to work but forbade him from lifting anything heavier than 30 pounds.

In response, Gopher fired him. Dumeus was devastated, his sister said.

Gopher did not answer questions about Dumeus, citing employee privacy.

Less than two months later, in December 2017, his heart stopped at a church service. He lay without a pulse for at least 27 minutes. Paramedics shocked him twice and revived him.

But his brain had been damaged. His mood became flat, his speech limited, his limbs involuntarily jerky.

He moved to a rehabilitation center in Clearwater. He stopped eating and suffered from seizures. In early 2019, he was taken to the hospital, where he deteriorated. A doctor pronounced Dumeus dead of coronary artery disease, complications from his brain injury and kidney disease at 7:57 a.m. on Feb. 21, 2019.

He'd lived 36 years. For 32 of them, he worked at the plant.

Cleared for work

Federal rules require Gopher to provide employees with regular medical evaluations, and Fr. Dr. Bruce Bolmier's role is to make sure workers can safely do their jobs.

Bolmier is the medical director of a Tampa clinic that Gopher has hired for the past seven years to monitor employee health.

But when workers had ailments that could be caused or made worse by lead, Bolmier didn't note a possible connection or warn them of the consequences, according to a review by the *Times* of medical files for a dozen workers.

In 2016, Bolmier wrote Dumeus a letter describing findings from his exam and noting his history of heart problems.

Bolmier didn't say in his assessment that Dumeus' heart problems and hypertension could make him more vulnerable to poisons. He didn't note a lab result indicating decreased kidney function. He wrote Dumeus had "a long history of working at the plant with no problems."

The *Times* obtained letters Bolmier wrote to six other workers who had hypertension, signs of possible kidney damage or both.

Assessment. I feel no sense of concern from this physical examination related to occupational exposures with Gopher." Behnke wrote to Dunnens and each of the other workers. Workers described their exams with Behnkeen as cursory and said they didn't get explanations of their lab results, including blood-lead levels.

Behnke, citing doctor-patient confidentiality, declined to answer questions sent to him about any Gopher employees. He also wouldn't answer questions about his role or about the risks posed to workers at the factory.

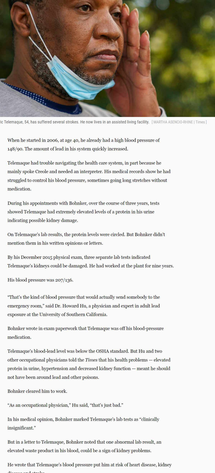
Doctors interviewed by the *Times* said they would have told the workers with health problems that continued exposure could make matters worse.

Behnke spent more than three decades as a Navy doctor, retiring in 2005. Records show he's certified in occupational, aerospace and preventive medicine and has no disciplinary history in Florida.

He is a member of the American College of Occupational and Environmental Medicine, and in 2009, served as president of the Florida chapter.

More than a decade ago, the national organization pushed companies and doctors to adopt stricter standards for removing workers with elevated lead levels instead of relying on the outdated OSHA rules. They said workers with two blood-lead tests of 20 micrograms per deciliter or higher or one at 30 should be removed.

When workers whose files the *Times* reviewed had levels that exceeded 20 micrograms per deciliter or even 30, Behnke didn't indicate in his medical opinions that their health could be in jeopardy. Instead, he left unchecked a box on the forms next to "in range where adverse health effects may occur."



Bruce Behnke, MD

"I find no areas of concern from this physical examination related to occupational exposures with Gopher," Behnke wrote to Dunnens and each of the other workers.

Workers described their exams with Behnkeen as cursory and said they didn't get explanations of their lab results, including blood-lead levels.

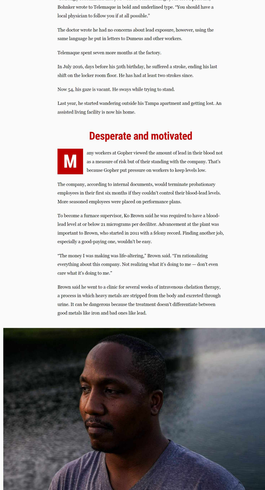
"Clinically insignificant"

Occupational physicians like Behnke have discretion under federal rules to recommend removing workers from lead exposure, regardless of their blood-lead levels, if the doctor deems exposure puts them at too much risk.

That didn't happen for Eric Telemaque.

Telemaque had earned a reputation at the plant as a hard worker, known for putting in long days and extra time to support his children and family.

He came to Florida in the early 1990s from the island of La Gonave in Haiti. He worked two jobs in Tampa, sleeping three hours a night, before getting hired to break down old batteries at the factory.



Former Gopher employee Eric Telemaque, 54, has suffered several strokes. He now lives in an assisted living facility. [MARTHA AGNEDO-RIVINE | Times]

When he started in 2006, at age 40, he already had a high blood pressure of 146/90. The amount of lead in his system quickly increased.

Telemaque had trouble navigating the health care system, in part because he mainly spoke Creole and needed an interpreter. His medical records show he had struggled to control his blood pressure, sometimes going long stretches without medication.

During his appointments with Behnke, over the course of three years, tests showed Telemaque had extremely elevated levels of a protein in his urine indicating possible kidney damage.

On Telemaque's lab results, the protein levels were circled. But Behnke didn't mention them in his written opinions or letters.

By his December 2005 physical exam, three separate lab tests indicated Telemaque's kidneys could be damaged. He had worked at the plant for nine years.

His blood pressure was 207/136.

"That's the kind of blood pressure that would actually send somebody to the emergency room," said Dr. Howard Hu, a physician and expert in adult lead exposure at the University of Southern California.

Behnke wrote in exam paperwork that Telemaque was off his blood-pressure medication.

Telemaque's blood-lead level was below the OSHA standard. But Hu and two other occupational physicians told the *Times* that his health problems — elevated protein in urine, hypertension and decreased kidney function — meant he should not have been around lead and other poisons.

Behnke cleared him to work.

"As an occupational physician," Hu said, "that's just bad."

In his medical opinion, Behnke marked Telemaque's lab tests as "clinically insignificant."

But in a letter to Telemaque, Behnke noted that one abnormal lab result, an elevated waste product in his blood, could be a sign of kidney problems.

He wrote that Telemaque's blood pressure put him at risk of heart disease, kidney disease and stroke.

"I strongly recommend that you work to better manage your blood pressure," Behnke wrote to Telemaque in bold and underlined type. "You should have a local physician to follow you if at all possible."

The doctor wrote he had no concerns about lead exposure, however, using the same language he put in letters to Dunnens and other workers.

Telemaque spent seven more months at the factory.

In July 2006, days before his 50th birthday, he suffered a stroke, ending his last shift on the locker room floor. He has had at least two strokes since.

Now 54, his gaze is vacant. He sways while trying to stand.

Last year, he started wandering outside his Tampa apartment and getting lost. An assisted living facility is now his home.

Desperate and motivated

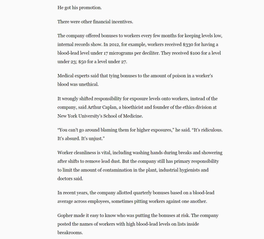
Many workers at Gopher viewed the amount of lead in their blood not as a measure of risk but of their standing with the company. That's because Gopher put pressure on workers to keep levels low.

The company, according to internal documents, would terminate probationary employees in their first six months if they couldn't control their blood-lead levels. More seasoned employees were placed on performance plans.

To become a furnace supervisor, Ko Brown said he was required to have a blood-lead level at or below 21 micrograms per deciliter. Advancement at the plant was important to Brown, who started in 2011 with a 60-day record. Finding another job, especially a good-paying one, wouldn't be easy.

"The money I was making was life-altering," Brown said. "I'm rationalizing everything about this company. Not realizing what it's doing to me — don't even care what it's doing to me."

Brown said he went to a clinic for several weeks of intravenous chelation therapy, a process in which heavy metals are stripped from the body and excreted through urine. It can be dangerous because the treatment doesn't differentiate between good metals like iron and bad ones like lead.



Ko Brown, a former furnace supervisor, said the money kept him at Gopher. "They showed us money that we've never seen before, so we rationalized working there," he said. [MARTHA AGNEDO-RIVINE | Times]

"I was going there every day off I had," Brown said.

He got his promotion.

There were other financial incentives.

The company offered bonuses to workers every few months for keeping levels low, internal records show. In 2010, for example, workers received $150 for having a blood-lead level under 17 micrograms per deciliter. They received $100 for a level under 23, $50 for a level under 27.

Medical experts said that tying bonuses to the amount of poison in a worker's blood was unethical.

It wrongly shifted responsibility for exposure levels onto workers, instead of the company, said Arthur Caplan, a bioethicist and founder of the ethics division at New York University's School of Medicine.

"You can't go around blaming them for higher exposures," he said. "It's ridiculous. It's absurd. It's unjust."

Worker cleanliness is vital, including washing hands during breaks and showering after shifts to remove lead dust. But the company still has primary responsibility to limit the amount of contamination in the plant, industrial hygienists and doctors said.

In recent years, the company allotted quarterly bonuses based on a blood-lead average across employees, sometimes pitting workers against one another.

Gopher made it easy to know who was putting the bonuses at risk. The company posted the names of workers with high blood-lead levels on Juts inside breakrooms.

Confrontations sometimes broke out between employees when one believed his bonus was in jeopardy because another was raising the average.

Gopher did not directly answer questions about bonuses or its culture. Robinson, the chief operating officer, said programs to reduce lead exposure have encouraged lower blood-lead levels at the factory.

Workers have tried all types of remedies to extract metal from their bodies. In the most extreme cases, they donated contaminated blood or platelets.

Three employees told the *Times* they donated blood. A dozen more said the practice was common.

The workers said they believed it could reduce the amount of lead in their blood before their bi-monthly tests. Some said they figured the blood banks would tell them if their donation was a problem.

Medical experts said they'd never heard of such a practice and understood the desperation among workers. But they warned that donating contaminated blood was troubling.

Blood banks don't screen for heavy metal toxicity, so they do for certain diseases. That could result in a patient receiving blood with lead during a transfusion. Doctors also said donating contaminated blood wouldn't significantly help the workers lower their blood-lead levels.

Other employees described taking pills, like EDTA, to cleanse their systems.

EDTA tablets are sold as a form of chelation, which is one of the only medical treatments for lead poisoning. Many physicians believe it comes with considerable risks, including potential kidney damage, so it has generally been reserved for those with the highest blood-lead levels.

Federal rules forbid companies from directing employees to use chelation treatment as a means to evade regulatory limits.

"We do not condone and strongly discourage unsafe practices intended to reduce blood-lead levels," Robinson said.

Other workers shared methods less extreme. They took vinegar pills. They focused on eating leafy vegetables. They tried cilantro, vitamins, fruits, probiotics, prune and pickle juices.

"People had all their ways of getting their blood-leads low," said Wilbert Townsend, a former furnace supervisor. "And I learned the best way to do it was to stay out of the plant."

Bringing it home

Lead dust left the factory with some workers, on their shoes, cars or cellphones. It traveled across Tampa and Hillsborough and Polk counties and into their homes, where their children found it.

The *Times* identified 26 children of plant employees who had lead in their blood, according to interviews and medical records. When workers discussed the blood-lead levels with pediatricians at the health department, they were told dust from the factory was likely the source of the problem, the workers said.

The Department of Health tracks lead poisoning cases across Florida that may come from old paint, ceramics, cosmetics or other causes. Statewide, from 2010 through 2014, the agency found roughly 275 cases of workers exposing their children, including 18 in Hillsborough County, according to the department's most recent study.

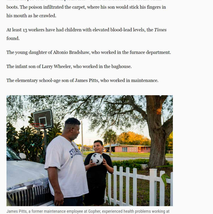
The cases tied to the factory date to the 2000s before Gopher bought the plant. One child ran his fingers along his dad's truck, coated with lead dust, then put his hands in his mouth, said Joe Galant, who served briefly as the safety manager under the previous ownership. Another worker tracked lead dust home on his boots. The poison infiltrated the carpet, where his son would stick his fingers in his mouth as he crawled.

At least 13 workers have had children with elevated blood-lead levels, the *Times* found.

The young daughter of Alvaro Bradshaw, who worked in the furnace department.

The infant son of Larry Wheeler, who worked in the baghouse.

The elementary school-age son of James Pitts, who worked in maintenance.



James Pitts, a former maintenance employee at Gopher, organized health problems seeking at

the factory. Blood tests have shown that his son DeVon has had an elevated level of lead in his body. [MARTHA ASENCIO-RHINE | Times]

The most recent instance occurred last year.

Robinson said Gopher is unaware of lead poisoning cases involving the children of its current employees.

Any amount of lead in a child is considered harmful. The health effects could result in stomach pain, headaches, lowered IQ or slowed growth.

Adam Risher, who worked in the baghouse, learned his oldest daughter, Cheyenne, had lead in her blood in 2014, when she was 4.

During a check-up, she had a blood-lead level of 16.

His younger children also had lead in their blood, he said. Ayden, who was 2, had a blood-lead level of 12. His baby, Addison, hit 34.

County health officials investigated the source of exposure and identified dust from the factory as the cause, records show.

Addison's pediatrician said her level was so high, she needed to be monitored weekly, Risher said. The infant had more lead in her blood than many of the factory's furnace workers.

"I don't know what to do," he recalled telling the doctor.

Risher's job was dusty. He and other workers manually collected lead dust whenever the automated system crashed.

He thought about how the lead covered his sweaty body at work. He threw away shoes that might have had dust stuck to them. He considered whether washing his socks and boxers at home was a good idea.

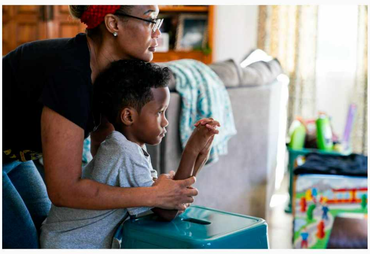
He thought about his kids, his wife who stayed home with them, and the need to make overtime on top of an hourly wage in a job that didn't require a college education. He vowed to somehow make sure his children's blood-lead levels came down.

He switched to a department with less dust before leaving Gopher two years ago.

Many workers believed that in the dusty environment, they couldn't entirely rid themselves of lead. They worried it stuck to their necks or embedded in their hair.

"If you had a blood-lead level," said Brown, the former furnace supervisor. "You were taking it home."

Colin, Brown's son, had lead in his blood since he was an infant. His levels consistently hovered around 9 micrograms per deciliter when he turned 2 and 3. During that time, his dad supervised a shift in the furnace department.



Colin Brown, whose father worked at Gopher, had elevated levels of lead in his body. He was diagnosed with autism at a young age. He also has suffered seizures and stomach issues. Now 7, he needs weekly occupational therapy sessions to improve his fine motor skills. His lead levels dropped after his father left the factory. [MARTHA ASENCIO-RHINE | Times]

Brown's job allowed his family to buy a new, two-story home in a Pasco County subdivision. But his pride was diluted by fear and guilt. He weighed the job's benefit against the danger.

As a baby, Colin developed slowly. He sat up late and didn't babble, never saying mama or dada. As a toddler, he was diagnosed with autism and attention deficit hyperactivity disorder.

Now, at 7, he loves technology and dissecting how it works. His dad said Colin struggles with stomach issues. And in recent months, he started having seizures. Doctors can't say for sure whether lead has been a factor in any of Colin's health problems, but Brown is suspicious.

In 2019, Colin had the lowest amount of lead recorded in his body. Two years after Brown left the factory.

Read Part 2: The Failings

Faulty equipment and mechanical breakdowns plagued the factory, leaving workers vulnerable. Regulators, meanwhile, have all but left the company alone.

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