



October 31, 2023

Honorable William Reineke, Chairman  
Ohio Senate Energy & Public Utilities Committee  
The Ohio Statehouse  
Columbus, OH 43215

Chairman Reineke, Vice-Chair McColley, Ranking Member Smith & Members of the Senate Energy & Public Utilities Committee:

Please be advised that the Affiliated Construction Trades Ohio Foundation (“ACT Ohio”) is a 501(c)(5) organization created to help foster economic and industrial development opportunities, and to promote industry-best practices for Ohio’s public and private construction.

ACT Ohio currently has 141 local affiliates across the state, who in the aggregate represent more than 97,000 building trades members. ACT Ohio has invested hundreds of thousands of dollars to promote careers in construction to Ohioans of all ethnic and socio-economic circumstances. We are aggressively recruiting the best and the brightest to seek an apprenticeship and develop skills that can sustain a family. We strongly support the concept of getting young people, minorities, females and veterans involved and interested in Ohio’s construction industry.

For the reasons that following please be advised that ACT Ohio supports HB 205.

***Overview: What the Bill Does***

Per the very tight definition of owner or operator, HB 205 only applies to oil refineries in Ohio – no other facilities. There are four oil refineries in Ohio:

PBF Energy*	Toledo, Ohio	180,000 barrels per calendar day
Cenovus-Lima	Lima, Ohio	179,000 barrels per calendar day
Cenovus-Toledo	Oregon, Ohio	152,200 barrels per calendar day
Marathon**	Canton, Ohio	97,000 barrels per calendar day

\*Please note that PBF Energy is a proponent of HB 205.

\*\* Marathon Refinery is not included in scope of bill as it does not meet the 120,000 barrels of crude oil per day production requirement (lines 222-228) – only the 3 NW Ohio refineries are subject to the bill.

For purposes of HB 205 it is important to note the distinction between the refinery's full-time (internal or operations) workforce and the external construction workforce brought in for projects on a contract basis.

Full-time employees of the refineries are represented by the United Steelworkers Union which is separate from the Building Trades. The Steelworkers and refineries have their own extensive training programs. By all accounts the refineries and the Steelworkers invest in significant training of their workforce. Accordingly, HB 205 does not apply to the employees of the refineries.

The external construction workforce is employed by contractors and sub-contractors hired by the refinery for projects that are typically very short in duration because refineries lose millions of dollars for each day they are not in production. It is not uncommon for a large facility shut down or turnaround to last 30-40 days and involve upwards of 5000 construction workers to be brought on site just for that period of time. "Partial" shutdowns also occur with more frequency – these are instances where only a portion of the refinery is shut down for construction work while the remainder of the facility remains on-line. With this many construction workers brought in for such a short period of time, the refineries invest in absolutely no training for the external construction workforce. This is why enactment of HB 205 is necessary.

**The bill does not include the full-time workforce/employees of the refineries – only the contracted for construction workforce brought on site for capital improvements/maintenance + shut-downs and turn-around projects.**

### ***Craft Labor Standards:***

To ensure that contractors/subcontractors have sufficient capabilities, they must comply with the following craft labor workforce standards: (1) Training Certification and (2) OSHA 30 hour Safety Credential

#### ***(1) TRAINING / Experience Requirements:***

Classification A: This standard is for construction workers (union or non-union) that have gone through ANY STATE OR DOL APPROVED apprenticeship programs (this includes currently registered apprentices).

Classification B: This standard is for those workers (union or non-union) that have not gone through an approved state or DOL approved apprenticeship training program. It requires that workers must have at least 6,000 hours of prior experience in the trade in which they are employed on the project which is the equivalent of a 3<sup>rd</sup> year apprentice.

Thus, all workers on the project who do not meet the Class A Training Requirement must meet this Experience Requirement.

According to U.S. Department of Labor records, here are the number of qualifying apprenticeship programs for construction:

Ohio:	272 Total Number of HB 205 Qualifying Programs	
	163 Non-Union registered apprenticeship training programs	(59.92%)
	109 Building Trades apprenticeship training programs	(40.07%)
Michigan:	307 Total Number of HB 205 Qualifying Programs	
	257 Non-Union registered apprenticeship training programs	(83.71%)
	50 Building Trades apprenticeship training programs	(16.28%)
Indiana	623 Total Number of HB 205 Qualifying Programs	
	570 Non-union registered apprenticeship training programs	(91.49%)
	53 Building Trades apprenticeship training programs	(8.50%)
National	4,793 Total Active Registered HB 205 Qualifying Programs	
	3,168 Construction Programs Not Affiliated with BT Unions	(66.09%)
	1,625 Building Trades apprenticeship training programs	(33.90%)

For clarification, **nowhere** in HB 205 is there a requirement for “union” apprenticeship programs. While I personally believe our programs to be the best, we certainly do not have the most.

## ***(2) SAFETY Credential Requirements:***

All construction workers subject to the Act—regardless of A or B classification, must have completed a 30-hour course in safety and health hazard recognition and prevention approved by the occupational safety and health administration (OSHA) of the U.S. Department of Labor.

No Exceptions.

## ***Implementation:***

SLIDING SCALE FOR IMPLEMENTATION PERIOD:

1<sup>st</sup> year:                      Classification A: 65% - Classification B: 35%  
After 1<sup>st</sup> year:                Classification A: 80% - Classification B: 20%

Why the emphasis on Classification A workers? Per HB 205:

Apprenticeship training is a system in which workers are fully trained through organized, formally registered apprenticeship standards, designed in accordance with established quality, safety and performance standards approved and monitored by the U.S. Department of Labor and state labor agencies, including the Ohio Department of Job and Family Services.

A skilled workforce is essential to safety, productivity and sustainability of construction and maintenance activities. Conversely, the use of workers with inadequate training can seriously undermine project safety. When a project is executed by less qualified craft workers, increases in human errors, less familiarity with safety procedures and inadequate safety training will be the factors that adversely influence safety performance.

Finally, as set forth by the United States Department of Commerce and Case Western Reserve University in *The Benefits and Costs of Apprenticeship: A Business Perspective* (2016) apprenticeship programs are widely supported by contractors and other employers as highly cost-effective due to higher productivity of trained workers, improved safety, improved project quality, more reliable project staffing, and reduction in employee turnover.

### *Need for Legislation*

On March 8, 2022, when I testified in support of HB 235 during the 134<sup>th</sup> General Assembly, I read the following to the committee:

#### **Purpose of Bill: As set forth at Lines 471-477 of the bill:**

**The risks inherent in construction are substantially higher in high hazard facilities that handle dangerous materials or substances insofar as unsafe work practices may cause explosions, chemical spills and other hazardous conditions, which may expose workers and the public, especially populations in nearby communities, to dangerous conditions that can lead to serious bodily injuries and death.**

The U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) found that, since the agency began monitoring safety management at these facilities in 1992, "*no other industry sector has had as many fatal or catastrophic incidents related to the release of highly hazardous chemicals . . . as petroleum refining. . .*" See Occupational Safety and Health Administration, OSHA 3918-08 2017, Process Safety Management for Petroleum Refineries (2017) (emphasis added)

Petroleum refineries also have experienced numerous fatal and/or catastrophic process-related incidents since 2019, including 3 explosions in Texas in the month of May 2023. Here is just a sampling of the coverage:

August 25, 2023 - (Louisiana) "Fire, chemical release at Garyville oil refinery trigger two-mile evacuation" – "Fire burns much of the day, sending up huge plume of black smoke visible for miles"

May 23, 2023 - (Oklahoma) "One person dies after explosion at Wynnewood Refinery, another injured"

- May 17, 2023 - (Texas) "TCEQ monitoring air quality after second Valero fire in 6 months"
- May 15, 2023 - (Texas) "Fire breaks out at Marathon refinery in Texas; 1 worker dead"
- May 5, 2023 - (Texas) "Massive explosion and fire at Deer Park oil plant in Texas, air monitoring is being conducted;" – 9 contractors released from hospital after Shell Chemical Plant fire in Deer Park"
- January 17, 2023 (Texas) "6 injured in fire at Texas oil refinery"

- 
- September 21, 2022 (Ohio) "**Brothers killed in refinery fire, family confirms**"  
"BP layoffs at Ohio refinery after fire indicate prolonged shutdown"  
"BP's Ohio Refinery May Stay Shut Down into 2023 After Deadly Fire"  
"Federal investigators cite BP for safety violations after fatal 2022 refinery explosion"  
"Union workers mourn, express frustration for brothers who died in BP explosion"

*PLEASE SEE THE ATTACHED ARTICLE PUBLISHED IN THE WALL STREET JOURNAL ON OCTOBER 15, 2023*

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- February 22, 2022 - (Louisiana) "Explosion at Marathon Refinery in Garyville injures 6 workers..."  
"Marathon's huge Louisiana refinery rocked by explosion, fire"
- December 23, 2021 - (Texas) "Major industrial accident sets off fire at ExxonMobil refinery"  
"At least 4 injured after Baytown refinery explosion..."

"Dylan Purcell and Nicholas Moore were tasked with sealing a leaking pipe that contained Naphthalene, a flammable gas, with two other individuals who worked for Team Industrial Services. As the four contractors worked, a metal piece became stuck on a bolt, prompting one of the Team Industrial workers to using their wrench "as a hammer" to loosen the piece, the lawsuit read. The other Team Industrial worker, who was tasked with ensuring that steam was sprayed on the area to prevent sparks, failed to do so, according to the lawsuit. The wrench created a spark, causing the flammable gas to ignite, which knocked all four workers down, and engulfed them in flames..."

- October 29, 2021 - (Ohio) "Four injured in fire at Cenovus Refinery in Lima, Ohio"

- February 27, 2020 - "Fire Exploded from part of Carson Refinery recently cited for

(California) workplace safety issues”  
“Fire breaks out at largest oil refinery on the West Coast”

December 5, 2020 – “7 injured when oil storage tank explosion rocks Corpus Christi’s  
(Texas) refinery region”

November 27, 2019 – “Massive explosion rips through Texas Petrochemical Plant”  
(Texas) “Explosion erupts at Texas chemical refinery, injuring at least 3 people”  
“60,000 people forced to evacuate after explosions at Texas refinery”

July 31, 2019 – “Explosion, fire injures 37 at ExxonMobil refinery in Texas”  
(Texas)

June 21, 2019 – “Giant explosion rocks largest refinery complex on the East Coast, sends  
(Penn.) gasoline prices higher”  
“S. Philly refinery blast released 5,000 pounds of deadly chemical...”

April 2, 2019 - “Huge explosion and fire rocks Texas chemical plant; at least 1 person killed”  
(Texas)

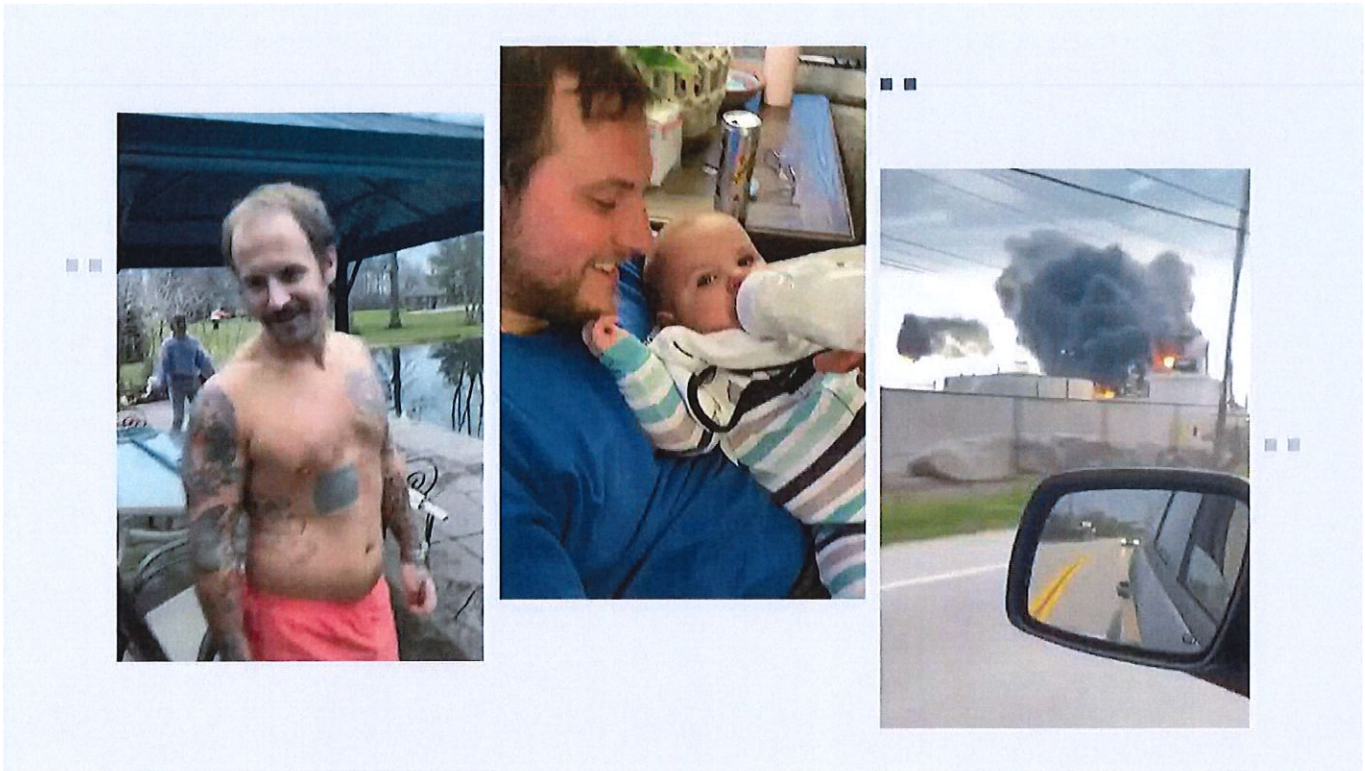
March 19, 2019 – “Houston chemical fire: Huge flames seen engulfing plant in Deer Park  
(Texas)

These findings, along with incidents that have occurred more recently all lead to the conclusion that the reasonable, narrowly tailored approach outlined in HB 205 represents good public policy.

Accordingly, I strongly urge the Senate Energy & Public Utilities Committee to carefully consider and ultimately favorably report House Bill 205. Thank you for your consideration and I would be happy to take any questions.

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<https://www.wsj.com/business/energy-oil/bp-oil-refinery-brothers-tragedy-6e90f1b0>



## He Feared His Refinery Job. His Brother Stayed to Help. The Explosion Hit at 6:46 P.M.

America's aging oil refineries faced pressure to ramp back up quickly after the pandemic. BP's Ohio site spiraled into tragedy.

By *Jenny Strasburg* [Follow](#) | *Photographs by Brittany Greeson for The Wall Street Journal*

Oct. 15, 2023 8:00 am ET

OREGON, Ohio—Ben Morrissey wasn't supposed to be at the refinery the night it blew up.

A new-hire trainee, Ben stuck around after his shift ended to help his big brother, Max, try to regain control over a facility that was belching smoke and flashing an unusually bright, towering flare that could be seen all over town.

The overtime was just part of the lure for Ben, a 32-year-old with a second baby on the way, an old house to remodel and a decade of hard-fought sobriety under his belt.

Ben also had reasons for wanting to stay close to his older brother.

Max, 34, had recently told friends and family that he was nervous about going to work. Over the summer, he took a brief leave, citing the stress of the job and concerns about safety.

Coming out of the pandemic in 2022, London energy giant **BP** **BP 0.17% ▲** had ordered a costly and complicated maintenance tuneup, a monthslong project called a turnaround. An army of employees and contractors put much of the facility, located in the Toledo suburb of Oregon, through a complete shutdown and systematic restart.



■ ■  
Brothers Ben, left, and Max Morrissey.

It is accepted wisdom in the industry that, just as airplane takeoffs and landings are the most dangerous times of flight, refinery risks can run highest during a turnaround.

By the end of July, BP was ready to ramp back up, but complications continued to emerge, as workers struggled to regulate pressures and curb a troublesome buildup of liquids.

On Sept. 20 of last year, Max had been back from leave for about a month when his supervisors asked him to come in before his shift to help resolve the latest problems. He declined, opting instead to keep working in the pizza and ice cream shop he had recently opened, and which he believed would be his ticket out of the refinery.

Max's father, Bob Morrissey, was helping in the shop that day. "I told you guys, you guys are f—ed up over there, and I'm not coming in until I have to," he heard Max say over the phone.



By the time Max arrived at the refinery for his 5 p.m. shift, workers had spent the prior 12 hours wrestling a cascade of malfunctions into submission, in part by shutting down several key units.

The lull was deceiving. All of the problems and temporary fixes had changed the underlying recipe of the oil flowing into the refinery's production machinery, according to preliminary government findings and BP's own internal assessment of what happened that day.

Among the changes: After being diverted earlier, liquid was accumulating in a drum where it wasn't supposed to be.

About an hour into Max's scheduled evening shift, the Morrissey brothers were among a small team dispatched over crackling radios to tackle the liquid buildup—apparently unaware that it was naphtha, a highly flammable substance distilled from crude. They were working outside surrounded by towering equipment. Some of the naphtha could be routed to the flare, where it could burn off, and some of it could be sent to the refinery's self-contained sewer system.

But the drum kept filling too quickly. Alarms blared in the control room.







Photos of Max on a pillow at their home. Max's wife, Darah, with their boys Recker and Wilde.

The brothers—wearing breathing apparatuses and protective gloves—began draining naphtha to the ground. A vapor cloud formed around them.

Refinery veterans say a vapor cloud, like a shimmering mirage over a highway on a hot day, is difficult to see when you're close to it. But other nearby workers could see the telltale distortions at the edges of the cloud, with Ben and Max standing inside it.

When the wind shifted on the path of an approaching storm, it pushed the cloud toward a giant nearby furnace.

At 6:46 p.m., a boom reverberated for miles and blasted a wall of flame and smoke through the heart of the refinery.

One worker nearby, Thomas Newman, saw Max stumble out of the flames, engulfed from head to toe.

Max screamed at Newman to find Ben.

Newman blasted Max with water and struggled to drag him away from the fire, trying not to pull off chunks of his severely burned skin. Max screamed to let him try to walk.

Then Max asked Newman to call his wife, Darah.

“Darah, this is Tom, I work with Max,” Newman told her. “He’s hurt really bad.”

Darah sensed the panic in Newman’s voice. She asked if Max was going to the hospital.

“And he just said, ‘I don’t know. I don’t know. Oh, my God, I just gotta get him out of here.’”

Both of the brothers died before sunrise.



Family photos of BP employees and brothers Ben and Max Morrissey at their sister Carolyn’s home.



■ ■  
A watch, keys and cellphone that Max Morrissey had with him the day he died last year.

This account of what happened that day and in the months leading up to it is based on conversations with dozens of people who have worked at the refinery or are familiar with its operations, as well as hundreds of pages of documents including BP's own nonpublic reports on the accident, internal BP emails and records tied to refinery staffing, finances and maintenance. It is also based on photographs, audio and video recordings related to the refinery and public reports from government investigations.

Three federal agencies have issued final or preliminary findings about the explosion, with two regulators citing the refinery operator for a range of training and operational deficiencies. One of the agencies, the Occupational Safety and Health Administration, identified 10 violations it called serious, including the failure to train workers about the presence of naphtha and to control how refinery equipment is drained. Two other investigations are continuing.

BP has spent years working to come out of the shadow of two of the most devastating industrial accidents in U.S. history, including a 2010 explosion that destroyed the Deepwater Horizon drilling platform in the Gulf of Mexico, killing 11 workers and causing billions of dollars in environmental damage. In 2005, a deadly explosion at its Texas City, Texas, refinery killed 15 workers and injured more than 170 others.

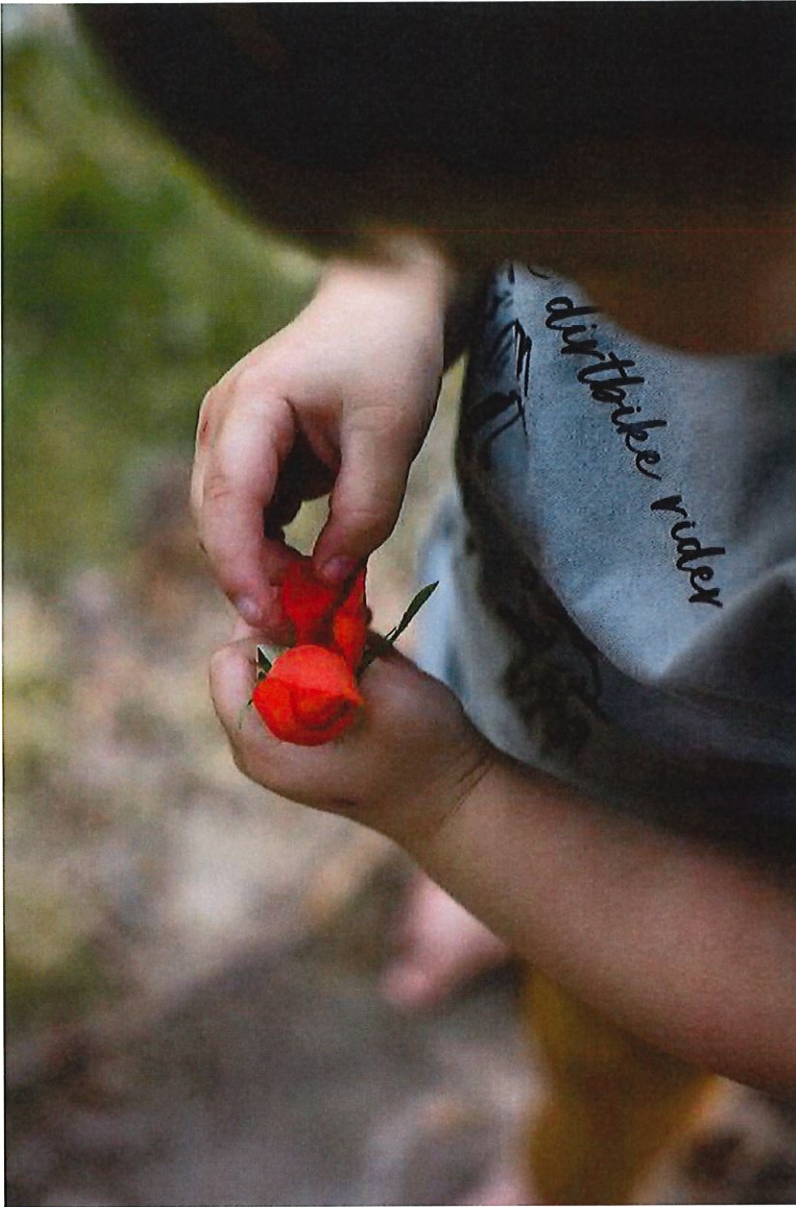
The company is contesting OSHA's findings about the Toledo explosion. In a statement, a BP spokesman said the company is cooperating with accident investigations, adding, "Wherever we work, safety is BP's priority. We are determined to learn from last year's terrible accident at the Toledo refinery that resulted in the deaths of Ben and Max Morrissey."



## America's Aging Refineries







Ben Morrissey with his son, Weslee. Now 3, Weslee plays in their yard in June.

There hasn't been a major new oil refinery built in the U.S. since the 1970s, and many plants are more than 100 years old, including the one in Toledo. U.S. petroleum-refining capacity peaked in early 2020, according to federal data, and by the start of this year there were 124 refineries in operation nationwide, 51 fewer than three decades ago.

The costly work of maintaining refineries dropped off sharply in 2020 as [Covid-19 stifled fuel demand](#). Refineries postponed planned maintenance and improvement projects—first during Covid and then amid supply-chain disruptions and pressure to ramp back up to take advantage of [high profits from resurgent demand](#). Shareholders in big oil companies and refinery operators were hungry for cash following huge losses in 2020.

“A lot of refiners, if they could, pushed projects into 2022 so they could take advantage of high margins,” said Hillary Stevenson, an analyst with energy-research and data firm IIR Energy,

who wasn't referring specifically to BP. With their shrunken capacity, she said, "refiners had to do more with less."

As the pandemic wore on, safety suffered. Industry statistics compiled by American Fuel & Petrochemical Manufacturers, an industry lobbying group, show that 2021 was the worst year for serious incidents at U.S. refineries since 2015, measured by hours worked, with the rate of so-called process-safety events 25% higher than in 2019 and 2020.

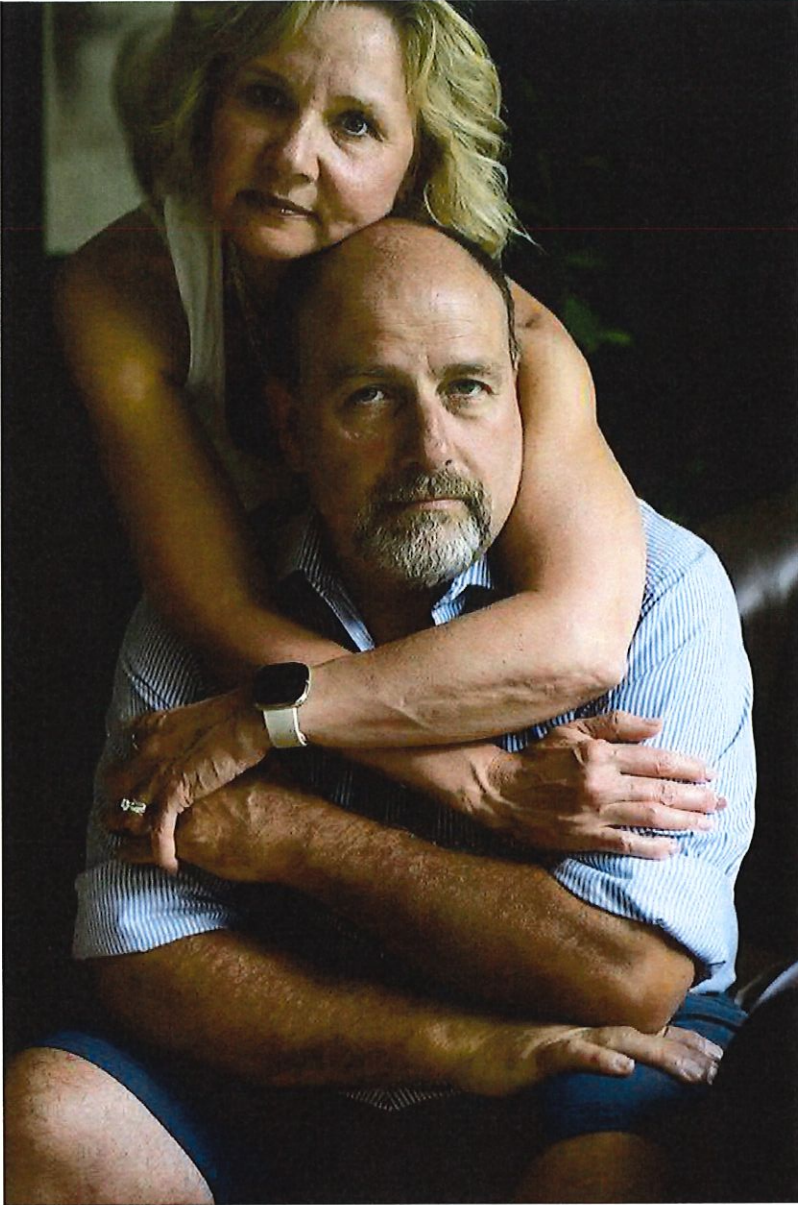
The incidents, including releases of chemicals, crude, vapors and other substances serious enough to cause injuries, evacuations or other consequences, ticked down last year but remained above the 2019 level. The AFPM notes that over recent decades, industry safety has improved significantly.

For BP, its sprawling U.S. refining business long conflicted with an effort to recast itself as a green company that was "Beyond Petroleum." From 2010 to last year, the company [sold off refineries](#), cutting the number globally to seven from 16, with the U.S. refinery count reduced to three from five, including fully and partially owned sites. After Bernard Looney took over as CEO in February 2020, he [redoubled efforts to cut harmful greenhouse-gas emissions and oil production](#), in a strategy he dubbed "Reinvent BP."

Its workers didn't know it yet, but the Ohio refinery would soon find itself on the BP discard pile.



**'We have a lot of things that can go 'boom' in this town'**







Thomas and Kelly Newman, along with one of his former refinery uniforms, at their home in Bowling Green, Ohio. A video Newman took before the explosion that killed the Morrissey brothers.

Since 1919, the former Standard Oil plant in the Toledo suburb of Oregon has been churning out some mix of gasoline, diesel, asphalt, propane and jet fuel through its snaking labyrinth of tanks, valves, towers, furnaces and piping sprawled across the south shore of Lake Erie.

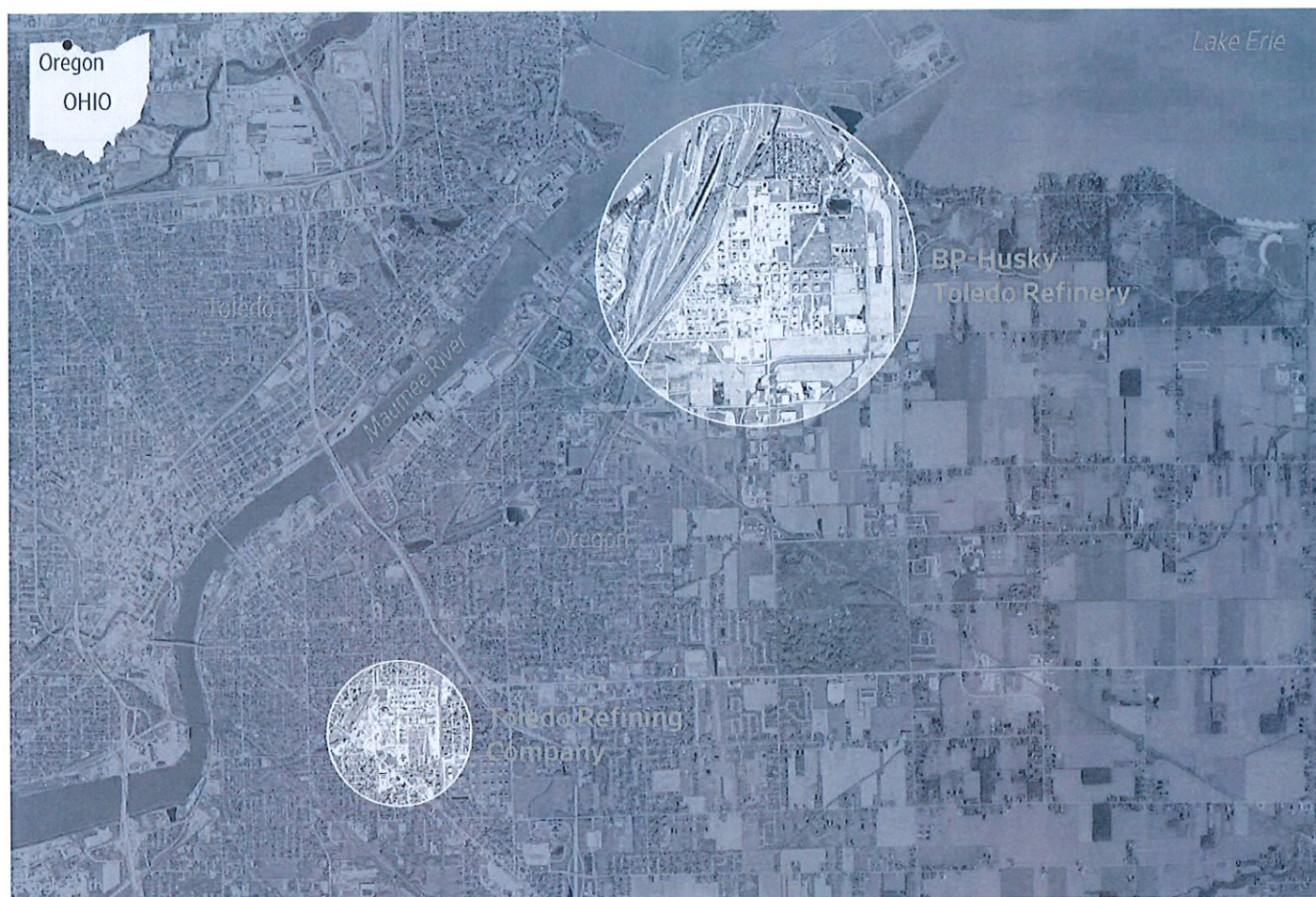
With its long main drag of aging strip malls, chain family-style restaurants and local watering holes, Oregon has about 20,000 residents and a suburban-rural-industrial vibe, with webs of railroad tracks passing neighborhoods with brick and clapboard houses and farms with duck ponds.

Refinery workers in this union stronghold can routinely pull in \$140,000 a year including overtime and bonuses, plus good benefits, without a college degree.

Oregon's two big refineries protrude from the pancake-flat landscape 4 miles apart on opposite sides of town, just across the Maumee River from Toledo. The landmark Veterans' Glass City Skyway bridge connects Oregon to Toledo.

Four workers died in 2004 when a massive crane being used to construct the bridge collapsed. One of them, a 42-year-old ironworker, was Ben and Max's uncle.

## A Refinery Town



\*Now fully owned by Cenovus Energy  
 Note: Satellite image has been stylized  
 Source: Google Earth (satellite image)

The risks associated with the heavy industry that powers the local economy are embedded in daily life.

“We have a lot of things that can go boom in this town,” said former Oregon fire chief Denny Hartman, who retired in 2022.

BP, operating as British Petroleum, bought into the Toledo refinery in the 1980s. Through restructurings it came to be known as the BP-Husky Toledo Refinery.

After Looney took over as CEO, executives said BP would streamline refinery maintenance including turnarounds, and put that business under one roof in the corporate structure with its global oil-and-gas production.

Looney’s Reinvent strategy also eliminated thousands of jobs globally. At the Toledo refinery, the cost-cutting meant more than one out of every 10 salaried employees left, many through a

wave of buyouts, leading managers to backfill jobs with less-experienced workers, according to internal documents and people close to the decisions.

Looney, [who resigned from BP in September](#) over what the company described as failures to disclose details of past relationships with colleagues, referred requests for comment to BP.

A turnaround is a crucial maintenance project to enable repairs and upgrades. It is like tearing apart and rebuilding a life-size industrial Erector Set, with the complexity of shutting down and restarting furnaces, boilers and flares with toxic liquids and vapors that can be deadly even when operations are in a steady state.





■ ■  
The former BP-Husky Toledo refinery, now fully owned by Cenovus Energy.

The plan in late 2021 was for BP and its refinery co-owner, Calgary-based [Cenovus Energy](#), to invest more than \$400 million in the plant during the 2022 turnaround, according to internal communications.

But the turnaround was messy, with cost overruns, a spate of fires that delayed work and operating problems that continued even after the formal end of the project, internal refinery documents show.

During the first half of 2022, the plant's roughly 600-strong workforce ballooned with the addition of around 5,000 third-party contractors on site each day at the project's peak, according to internal refinery communications.

The thousands of contract workers, many from petrochemical and refining hubs in Texas, filled Oregon's hotel rooms and bedrooms that locals rented out across town. For much of spring and summer, locals say, hangouts like Luckies Barn & Grill were teeming every night with out-of-town workers.

On March 23, 2022, Des Gillen, then the Toledo refinery's general manager, sent an email memo to all Toledo staff. It marked the 17-year anniversary of BP's Texas City refinery disaster.

"This tragedy affected BP to the core, and changed the way we view safety forever," Gillen wrote. He urged managers to pull their teams together and talk about Texas City and how to apply its lessons to the coming turnaround, including responding to safety alarms and closely following written procedures.

"Where that can't be done safely then we should stop, assess the risk and document any changes," Gillen wrote.

Yet problems persisted. Over one 10-day period in July, the refinery suffered more than 20 instances known as "loss of primary containment," spills and accidental releases of both toxic and nontoxic materials. Several were serious, causing management to call for extra vigilance around valves and pressure readings, documents show.



■ ■ Patrons sit at the bar at Luckies Barn & Grill in Oregon, Ohio, in June.

Some workers in charge of operating refinery equipment complained supervisors were rushing safety checks and asking employees to sign off on procedures that hadn't been completed to show progress with the turnaround, according to private communications and people involved in some of the discussions.

The undertaking meant that as soaring margins fueled huge profits at U.S. refineries, BP-Husky was almost entirely offline for three months. The documents show the refinery lost \$404.2 million during the first seven months of 2022, more than BP had forecast, by a measure BP calls replacement cost profit that is similar to net income.

Immediately after the turnaround, in early August, BP disclosed that it would sell its half-ownership of the refinery to Cenovus for \$300 million and relinquish its operating role. The Canadian company said in its Aug. 8 announcement that the just-finished turnaround would “improve operational reliability” at the refinery.

Before BP had a chance to turn over the keys, the refinery would claim two lives.



## The Morrissey Brothers

Maxwell Morrissey was a prankster, famous among his classmates for doing a backflip off the stage at his high-school graduation.

A marathon runner and triathlete, he tried for two and a half years to qualify as a Navy SEAL but left the service in frustration after repeated injuries.

He got work on the assembly line of the massive Jeep plant in Toledo, following in the footsteps of his father, a former senior automotive-union leader, before moving into better-paying refinery work. He started at the BP plant in April 2020, the early depths of the pandemic.







Max's sons Recker and Wilde play at the lakeside where Darah grew up spending time with her family. Wilde cooking with Max.

The more reserved of the two, Benjamin Morrissey took a more tortured path.

A drug addiction that his parents said had started in high school with weight-loss pills to manage his bulk for wrestling escalated to include narcotics for minor injuries. That soon devolved into a heroin habit.

Ben's parents tried to push him into rehab, but it didn't take. They said he overdosed twice and had to be rushed to the hospital.

"We thought we were going to lose him," said his father.

Ben decided he couldn't clean up close to home, and in late 2011, he looked farther afield. He soon enrolled in an inpatient center run by Franciscans an hour's drive north of New York City. He spent several months at a shelter that provided 24-hour support, transitioned to outpatient care and came out clean for good.

"Are you guys ready to have 110% fun?" newly sober Ben would ask friends before they headed out on beaten-up dirt bikes or fired up the grill for a beer-free barbecue, remembers Mark Choinski, a financial planner who went through recovery with Ben and stayed close with him. "He always wanted to be at the party, without having to party."

Living in New York's Hudson Valley, Ben hired on as an ironworker, got certified to weld on bridges and showed a knack for fixing up motorcycles and boat engines. He met his future wife, Kaddie, at Max's 2016 wedding in Mexico.

She remembers asking why he wasn't drinking, and he said he was sober. She found him cute and awkward, "but it was like a good awkward." They danced and talked all night, then dated long-distance before marrying three years later.

Ben eventually moved back to Oregon, where his sisters Carolyn and Erin were living with their families near Max and their parents. They were all still grieving the 2014 suicide of their sister Katie at age 29.

Having Ben back home, sober and in love, with a toddler son, pulled the family together in new ways.





Kaddie Morrissey at home with Weslee and her newborn daughter Benna, as well as her mother, Kelley Rowland.

Ben found nearby support meetings and was soon leading some of them. Now he was organizing get-togethers and cooking meals for the whole family.

“It was joyful,” said sister Carolyn. “I had my guard up just because I was worried about him falling into old habits....But he was holding his own.”

Max, who by now had two small boys with his wife Darah, vouched for Ben with his bosses at the refinery.

The boys were close. They grew up wrestling together in high school and shared dreams of building lake houses and hosting family cookouts and fishing trips as their own children grew. In his obituary, Max’s family said his nieces and nephews called him “the Fun-cle.”

About six months into their marriage, “Max came to my work and said, ‘I need to borrow your car. I need to drive to Detroit real quick,’” Darah recalled.

“And he came home with a pizza oven.”

A couple of days later, he added a food-service truck that he planned to park in downtown Toledo to serve people coming out of minor-league baseball games and bars at night. That morphed into Red Eye Pie and Frozen Fantasy’s, a carryout pizza and ice cream restaurant.

With a sliding window at the walk-up counter, picnic tables and kids’ bikes parked out front, the restaurant had its grand opening in May—four months before the accident.

Max usually didn’t talk much about the details of his refinery job, Darah said, but last year, he told her, one of his sisters and a close friend that he was nervous about going to work. He battled with supervisors and took off about a month of “stress leave” during the summer.

“His safety concerns were genuine,” said friend and colleague Dustin Jones, 42, who worked closely with Max and was with him minutes before he died.



Red Eye Pie and Frozen Fantasy's, a pizza and ice cream shop opened by Max and Darah Morrissey.

In late 2021, Max and his colleague Thomas Newman shot cellphone video of a relatively new piece of equipment, the piping of a heat exchanger connected to a gas plant. In the video, liquid is spewing from seams in the piping and pooling on the ground. It was naphtha.

Max sent one of the videos to colleagues, in which he complained that people at the refinery wouldn't take his safety alerts seriously. He told co-workers that the refinery across town, where he worked for several years before joining BP, wouldn't have let such malfunctions and leaks go unfixed.

It couldn't be learned whether BP addressed any of Max's complaints.

Max's complaints made him unpopular to some of his bosses, and frustrated co-workers who thought he could have been more measured when he spoke up about what he saw as problems at the plant.

"I think everybody liked Max, but Max couldn't go with the flow. He liked to stir the pot," Jones said. "But he was right."

At home, Max appeared increasingly anxious.

"He told me I didn't understand how dangerous his job was," Darah said. "He told me that BP was going to kill him."

She told him that if he wanted to, he should quit and they would figure out the money and health insurance, which she lacked working as a hairdresser. But she also said she thought he was being dramatic in his impatience to be his own boss.

“You’re fine,” she said. “You’re not going to die there.”



## ‘Our lives are just forever changed’

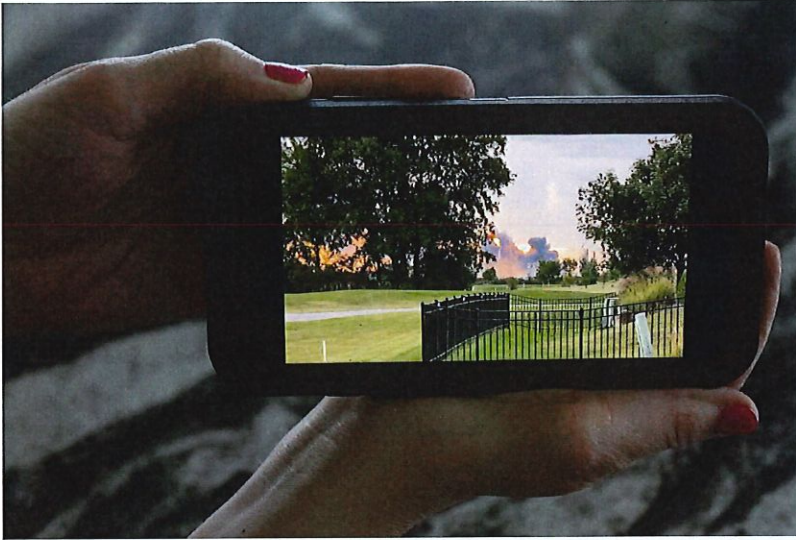
The refinery started to show signs of trouble late on the night of Sept. 19 and got worse in the early-morning hours before workers arrived for the 5 a.m. daytime shift.

In and around a unit known as Crude 1, the towering heart of the refinery’s production machinery, valve pressures and liquid levels climbed to dangerous levels.

One of those valves was labeled “Process Safety Valve 1457,” in keeping with refinery practices of tagging equipment for maintenance and record-keeping. PSV-1457 was a heavy cylinder about two feet tall. Its purpose was to relieve pressure above set operating limits to prevent harm to equipment and people when things went wrong.

The valve had been worked on during the turnaround, including testing and quality-control checks, according to detailed turnaround records, some of which list names of a BP supervisor and an outside contractor alongside tasks to be performed.

But on this morning, PSV-1457 couldn’t handle the pressure. BP and outside investigators would later say it was wrongly configured for the job—wrong design, wrong pressure rating, according to BP’s internal assessment—making it a root cause of the refinery’s accelerating instability. Increased naphtha flows pushed PSV-1457 past its limits, leading it to chatter, or rapidly open and close, which caused a deafening racket as nearby equipment shook violently.



■ ■ Carolyn Berryman recorded the 2022 refinery fire from her backyard without realizing her brothers Max and Ben were at the scene. She keeps a small branch from the site where Max's ashes were spread.

An operator called for a shutdown of the unit. A supervisor said no, according to accounts of workers who were there.

The severe vibrations continued. At around 8 a.m., workers found naphtha spewing to the ground from a failed weld—eventually enough to fill a small backyard swimming pool. Over the next two hours, they fought to beat down the resulting naphtha vapor cloud with water from high-capacity jets while they raced to isolate the valves and stop the bleeding. Several suffered chemical burns on their legs and feet.

The vapor cloud could have been catastrophic, but the water blasts managed to dissipate it.

Through the morning and afternoon, Oregon residents circulated photos on social media and text chats of the apparent troubles at the refinery, evidenced by the larger-than-normal flare atop the main tower.

Hartman, the fire chief, also noticed it, and drove over to the main refinery entrance to see what needed to be done.

“When you see a change in that flare stack, you know something is wrong. They were burning big and bright,” he said.

Hartman ran into his assistant chief there, who had also noticed the flare. They phoned the BP fire chief inside and asked what was going on.

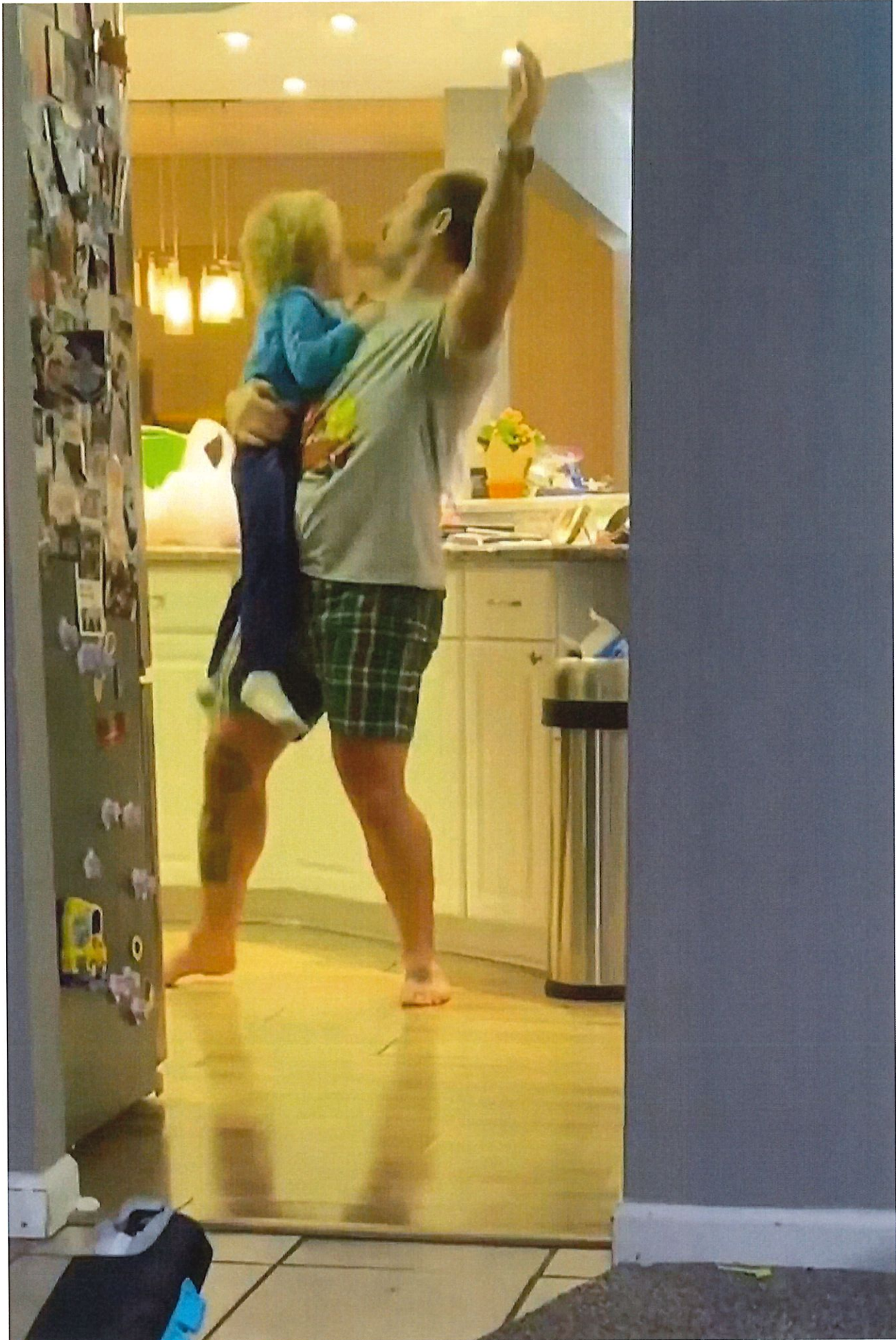
“We have an unusual event, it’s under control, we’re not going to need you,” Hartman said he was told. They left.

The naphtha hydrotreater and another nearby unit were shut down. The gas plant that Max had complained about—with the video showing the naphtha spray—was bypassed.









Ben on Max's shoulders; the brothers after Max finished a triathlon in 2016; and Max at home with his sons.

Crude 1 kept running, but at a rate of around 84,000 barrels a day, less than its normal 100,000 or more. Crude 1 is where Max and Ben would soon be working side by side, after Ben overstayed his shift and Max arrived.

They hugged as they greeted each other outside amid the roaring machinery.

But soon there was chaos inside the refinery control room—a cacophony of alarms with lights flashing red, yellow and magenta.

Different supervisors gave overlapping and conflicting instructions about how to handle the plant's spiraling issues, partly because they themselves had incomplete knowledge of everything going wrong, according to workers and documents tied to some of the investigations. Both inside the control room and outside with the roaring machinery, some employees making split-second decisions that changed the course of the day's events had barely any experience in the jobs they were filling that night.

Several units of the facility had already been turned off, and some people inside the control room pushed to shut down the central crude unit.

One control-room operator, Doug Andrews, had come on duty at 4:15 p.m. Andrews had spent years operating the equipment outside, but he had just come out of training in the control room. It was buzzing with more people than normal, confusing the reporting lines.

Andrews, growing increasingly worried about the level of the liquid in the fuel-gas mix drum, made three requests to more-senior employees to shut down the heat sources feeding the main crude tower, according to notes from an interview that was conducted as part of BP's accident investigation and accounts of workers who were there.



■ ■  
Bob and Patty Morrissey at their dining room table as photos of their sons Ben and Max hang behind them.

“Don’t quit,” one of the more-senior control room operators told Andrews. “You’ve got this,” another said, standing behind him and his flashing computer screens. Still another colleague didn’t say anything at that moment, but later said he was worried they were going to lose the refinery.

“I don’t have control,” Andrews said as smoke poured out of the refinery stacks. He was losing pressure readings. He moved to shut down key furnaces without anyone giving him permission, he later told BP lawyers. But it was too late.

Max and Ben were among the four workers who responded to requests from control-room operators to drain the mix drum, according to federal investigators with the U.S. Chemical Safety and Hazard Investigation Board. At that time, personnel were unaware the liquid was naphtha, according to BP’s internal report.

Co-workers said the protective equipment Ben and Max were wearing would have made it difficult, if not impossible, for them to smell or feel the liquid to help them know what they were draining. It might have been more-benign wastewater, for all they knew. And exactly what orders were given, or how clear they were—there were also problems with radio transmissions, and confusion over who was in charge, several workers say—remains in dispute.

After a while, two of the workers dashed off to troubleshoot other problems, leaving Ben and Max. BP, in its internal report about the evening of Sept. 20, refers to the brothers as unnamed “outside operators” and says they drained the liquid directly to the ground, against refinery rules.

OSHA in its findings said BP failed to evaluate how the mix drum might over fill and how to drain it, which it said “exposed employees to fire and explosion hazards from potential releases of flammable liquids or gasses.”



■ ■  
Darah Morrissey at home with her sons.

From a house about a mile away from the refinery, Randy Tharpe II, an Applebee’s manager who used to work at the BP plant, heard the blast and called 911.

“I just heard ‘boom.’ I see smoke. And I see gas plumes in the sky,” Tharpe told a 911 operator, according to a recording of the call.

His voice took on more urgency.

“I don’t want to blow up.”

At home 2 miles away, Max’s wife Darah was making dinner for their boys, Wilde and Recker, ages 4 and 2 at the time, and looking online at flights for a trip she and Max were planning to Walt Disney World at Christmas. She didn’t want to go to the theme park again—it wasn’t exactly relaxing—but Max had insisted it should be an annual tradition.

Her cellphone rang. She didn’t recognize the number and let it go to voicemail. It rang again immediately.

It was a man, and in the background, someone unrecognizable to her, screaming.

Newman told her about the blast and that Max was hurt. Shortly after hanging up, he snapped photos of Max with his cellphone, at Max’s request. Max’s own phone was charred.



Only two of Patty and Bob Morrissey’s children are still living: Erin Besgrove, far left, and Carolyn Berryman, second from left.

In one of the images, Max is sitting on a plastic bucket, looking down where most of his clothes are missing except for part of his shirt and his boots. In another, his eyes, wide-open and wild, look straight into the camera. He looks shocked but also capable of standing up and walking away.

Ben was likewise lucid, giving hope to co-workers who continued fighting the fire after the brothers were rushed to the hospital—first in Toledo, and then to Ann Arbor, Mich., by ambulance.

Darah got to Ann Arbor about the same time as the ambulance, and the rest of the family gathered together as the prognosis for the brothers grew increasingly dire.

“We literally watched them die,” sister Erin said. “Sixteen minutes apart.”

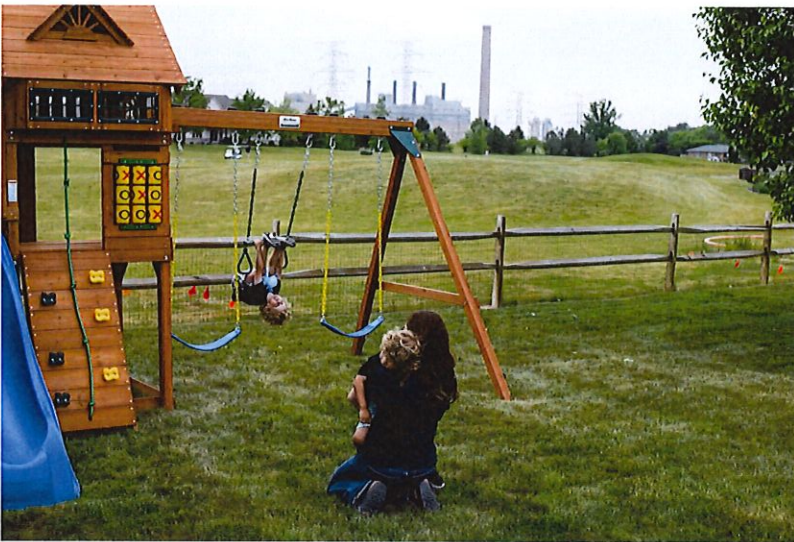
That night, Kaddie told family members that she and Ben were expecting another child—a daughter, Benna, who would be born the following year.

Bob and Patty Morrissey say the family is broken in ways that may never be fixed.

“Everybody’s in therapy. People are on antidepressants,” Patty Morrissey said. “Our lives are just forever changed.”

In the driveway of their Oregon home, there was a fishing boat with a new motor, welded in place one night by Ben as a surprise for his dad. Out back by the pond was the barbecue where the brothers would hold family cookouts. In the dining room, Bob Morrissey showed a wall of high-school graduation portraits of their five children.

“Yeah,” he said, “the two on the left are the only ones left.”



Wilde and Recker play in their backyard with Darah, as a power plant looms in the distance.

—Family videos and photographs of Max and Ben Morrissey provided by the Morrissey family. The refinery video at the top of the story is by Ryan Rohm via Storyful

—Design by Kara Dapena

Appeared in the October 16, 2023, print edition as “Tragedy Hits a BP Refinery: ‘He’s Hurt Really Bad’”.