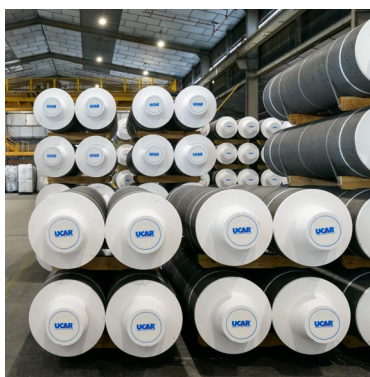
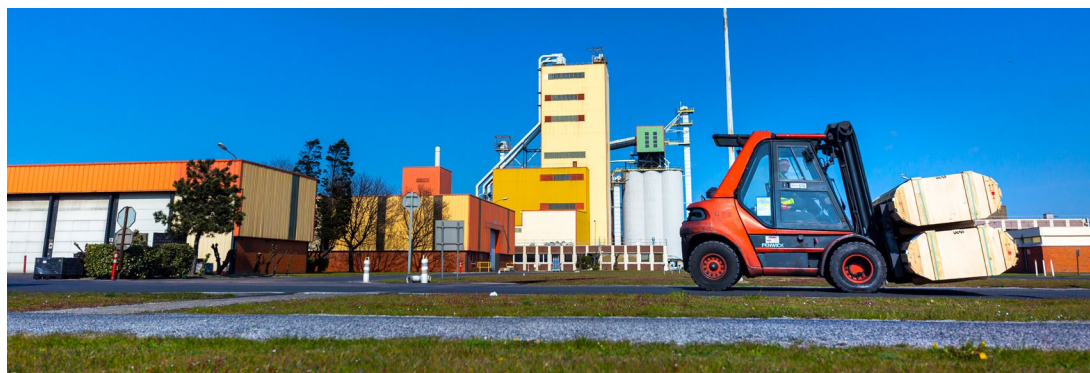


# 2020 SUSTAINABILITY REPORT



# ABOUT THIS REPORT

This 2020 Sustainability Report features GrafTech’s and its subsidiaries’ environmental, social, and governance (ESG) efforts and initiatives. Unless otherwise noted, this Report covers calendar year 2020. We used Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB) reporting standards in the development of the report. Please direct all questions and feedback on this report to [sustainability@graftech.com](mailto:sustainability@graftech.com).

## 4 Overview

- 4 Message From the CEO
- 5 About GrafTech
- 6 Business Ethics and Corporate Governance
- 7 Materiality and Sustainability Strategy

## 8 Workforce

- 9 Health and Safety
- 13 Talent Management

- 15 Local Communities

## 14 Society

- 17 Product Quality
- 18 Customer Service
- 19 Material Sourcing

## 16 Products and Customers

- 21 Environmental Management
- 21 Energy
- 24 Emissions and Air Quality
- 26 Water
- 27 Waste

## 20 Environment



# MESSAGE FROM THE CEO



I am pleased to present GrafTech's second annual Sustainability Report highlighting our ESG performance in 2020. I would like to thank our global team for their tireless work, resilience, and diligence in responding to the challenges faced during 2020

while upholding our core values of Safety, Environment, and Quality, what we internally refer to as "SEQ". These values focus our attention on a core mission for GrafTech: safe working practices and conditions, environmental stewardship, and superior product quality. We begin meetings at GrafTech with SEQ and we refer to SEQ topics throughout this report.

**Safety.** We begin, as we always do, with safety. We are committed to health and safety excellence, exemplified by our improvement in 2020's total recordable injury rate to 0.51, a 46% improvement over 2019, continuing the improving trend over the past few years. I am very proud of the dedication of our team as we work to reach our ultimate goal of every employee going home safely every day.

In the spirit of SEQ, we instituted a number of health and safety initiatives during 2020 to ensure we maintain our high standard of excellence. For example, we enhanced our health and safety auditing program by qualifying 37 employees as internal auditors of our health and safety programs.

**Environment.** As you will read about further in this report, we are committed to improving our environmental footprint. We continue to monitor and track our progress on energy consumption and air emissions to identify opportunities for improvements. During 2020, at our Monterrey, Mexico facility, we continued to implement projects focused on controlling emissions, such as installation of new dust collection systems and upgrades to our mill, mix and forming, and baking operations to enhance our air emission controls. We also implemented projects that helped us realize a reduction in energy and greenhouse gas emissions, in addition to our successful water recycling and reuse programs at our Calais, France, and Pamplona, Spain, sites.

**Quality.** On the quality front, we recently reassessed key performance indicator (KPI) tracking and reporting to reinforce best practices within our quality procedures. For our customers, we offer an electric arc furnace monitoring system, ArchiTech® Furnace Productivity System (ArchiTech®), which helps them use our products more efficiently and improve their operations.

Overall, we are proud of the progress we made across the organization towards our ESG initiatives in 2020. In addition to the initiatives mentioned above, we undertook activities as varied as our community involvement and outreach at our Monterrey and Salvador sites, our capture of energy generated at our Seadrift Coke facility to create an additional source of electricity for the area, and our emission reduction efforts that include capital investments and advanced engineering technology on the equipment at our sites. We are fully committed to advancing these efforts across our global organization.

Finally, in 2021, we undertook a robust materiality assessment with the assistance of an external consultant and are very encouraged by the results, which will help GrafTech build the foundation and strategy of our future sustainability work.

As always, I welcome your questions and comments on our sustainability efforts and look forward to engaging with you on these topics as we move forward.

Sincerely,

**David J. Rintoul**  
President and Chief Executive Officer

# ABOUT GRAFTECH

GrafTech International Ltd. is a leading manufacturer of high-quality graphite electrode products essential to the production of electric arc furnace steel and other ferrous and non-ferrous metals. We believe that we have the most competitive portfolio of low-cost ultra-high power graphite electrode manufacturing facilities in the industry, including three of the highest capacity facilities in the world. We are the only large scale graphite electrode producer that is substantially vertically integrated into petroleum needle coke, a key raw material for graphite electrode manufacturing. This unique position provides us with competitive advantages in product quality and cost.

Founded in 1886, we have 135 years of experience in the research and development (R&D) of graphite- and carbon-based solutions, and our intellectual property portfolio is extensive. Headquartered in Brooklyn Heights, Ohio, GrafTech has approximately 1,300 employees globally, with manufacturing facilities and sales offices operating in nine countries, serving customers in over 50 countries.

Graphite electrodes are an industrial consumable product used primarily in electric arc furnace steel production, one of the two primary methods of steel production and the steelmaking technology used by all "mini mills."

Electrodes act as conductors of electricity in the furnace, generating sufficient heat to melt scrap metal, iron ore, or other raw materials used to produce steel or other metals. We estimate that, on average, the cost of graphite electrodes represents less than 5% of the total production cost of steel in a typical electric arc furnace, but they are essential to electric arc furnace steel production. Importantly, electric arc furnace steelmaking is more environmentally friendly than blast furnace steelmaking. The electric arc furnace method produces approximately 25% of the carbon dioxide emissions of a blast furnace facility\* and does not require the smelting of virgin iron ore or the consumption of coal.

Petroleum needle coke is the key raw material we use in the production of graphite electrodes. We are substantially vertically integrated into this critical raw material source, significantly reducing our reliance on other suppliers. We believe we are one of the largest petroleum needle coke producers in the world. The quality of our petroleum needle coke, controlled to exacting specifications, is superior for graphite electrode production compared to most of the petroleum needle coke available to our peers on the open market. This allows GrafTech to produce high-quality electrodes in a cost efficient manner.

For more information on our business and products, please visit our [corporate website](#).

\*Statement from Steel Manufactures Association (SMA)





# BUSINESS ETHICS AND CORPORATE GOVERNANCE

At GrafTech, we understand that ethical conduct and business success are inseparable, and no business objective can be achieved without following this fundamental principle. Our 2021 [Code of Conduct and Ethics](#) (“Code”) supports this fundamental principle and informs thoughtful decision making. GrafTech expects all employees, directors, and officers to follow the Code and [report](#) violations through any of several means, including an anonymous hotline, without concern of retaliation.



As outlined in the Code, GrafTech is committed to a healthy, safe, and secure work environment for all of our employees by providing equal employment opportunities; a harassment-free workplace; and to respect human rights and diversity among our employees. Compliance with the law and adherence to the highest standards of ethical conduct are critical. Our Code provides employees with guidance on conducting business ethically, including complying with laws for anti-trust and competition, anti-bribery, export control, and environmental regulations. Each year, GrafTech employees review and certify compliance with our Code.

We have formal ethics and compliance training sessions for employees that reinforce these principles on topics that include, workplace harassment, avoiding bribery and corruption, prohibiting insider trading, compliance with international trade laws and regulations, and reinforcing Information Technology (IT) security. As part of its regular review of the corporate governance practices of GrafTech, the Code is also reviewed annually by the Board of Directors (“Board”).

GrafTech is committed to strong corporate governance practices. Management, with the oversight of the Board, is dedicated to ensuring that our company is managed for the long-term benefit of all our stakeholders. To fulfill this role, the Board and its committees meet throughout the year and engage in meaningful discussions with GrafTech executive-level management to ensure that the Board is informed of the Company’s activities, operating plans, and strategic initiatives.

GrafTech is a publicly traded company, listed on the New York Stock Exchange (NYSE), and complies with applicable NYSE listing and governance standards and U.S. Securities and Exchange Commission (SEC) rules and regulations.

Our Board of Directors consists of nine directors: five are independent under NYSE definitions; three are Brookfield representatives; and one is GrafTech’s President and Chief Executive Officer. Two of our directors are women. The Board has two standing committees—the Audit Committee and the Governance and Compensation Committee—and is guided by our [Corporate Governance Guidelines](#). Our Governance and Compensation Committee reviews director qualifications at least annually. The criteria for selecting new directors must meet the NYSE and SEC requirements. Additionally, the Board and its committees evaluate their performance annually based on criteria developed by the Governance and Compensation Committee, to determine whether the Board and its committees are functioning effectively.

For more information on our corporate governance practices, please see our most recent [Proxy Statement](#).



# MATERIALITY AND SUSTAINABILITY STRATEGY

In 2021, GrafTech proactively engaged with key external and internal stakeholders, to identify the most material ESG-related topics to our business. This materiality assessment followed the guidelines of the GRI, and with support from an independent consulting firm, consisted of identifying potential material topics through ESG topic benchmarking, mapping ESG impacts across our value chain, engaging stakeholders, and validating our identified material topics.

As a result of our materiality assessment, the ESG-related issues of greatest importance to GrafTech and our stakeholders are:

- |                      |                                             |                         |
|----------------------|---------------------------------------------|-------------------------|
| ■ Air Emissions      | ■ Innovation                                | ■ Product Quality       |
| ■ Climate and Energy | ■ Material Sourcing                         | ■ Product Stewardship   |
| ■ Customer Service   | ■ Occupational Health and Safety, Workforce | ■ Regulatory Compliance |

At GrafTech, an executive management Steering Committee is responsible for defining the company’s ESG mission and implementing and overseeing the company-wide ESG strategy. Our ESG working group, comprised of cross-functional subject matter experts, is responsible for developing and implementing programs and initiatives that support the Company’s ESG strategy, providing support for individual site ESG programs, and regular tracking and reporting of data and information relevant to our material topics.





# HEALTH AND SAFETY

The health and safety of our global team is a top priority and is a core value of the Company. Our comprehensive programs strive to achieve zero injuries and no harm done. Our global Health, Safety and Environmental Protection (HS&EP) Policy applies to all employees, contractors, and visitors, and governs our actions and decisions every day. We also have a [Code of Conduct and Ethics for Suppliers and Contractors](#) that includes HS&EP guidelines required for doing business with GrafTech.

GrafTech's focus on HS&EP is a top priority for all employees. We have built risk recognition into our HS&EP programs. From pre-job planning, safety walks and inspections, planned job observations, or training employees on health and safety best practices, we strive to identify and mitigate risks.

Our corporate health, safety, and environmental requirements and procedures are reviewed routinely and updated as needed. Written HS&EP rules are posted at all facilities and communicated to all employees. Additionally, employees receive frequent communications including Safety Shares, which include lessons learned from recent events, and HS&EP best practices and emerging topics. HS&EP goals are developed and updated annually and support the strategic objectives of the business.

In the spirit of continuous improvement, regular inspections, internal reviews, and corporate audits are conducted to foster compliance with our high standards. Our corporate policies and procedures help us manage health, safety, and environmental risks. Procedures to address these risks include those on personal safety, incident reporting, job safety analyses, contractor management, hazardous work, occupational health, and environmental management. In order to validate compliance with corporate and regulatory HS&EP requirements, a combination of internal and third-party auditors complete HS&EP audits for all of the sites. In 2020, we began a program to train internal employees to assist in conducting health and safety audits. We continued this program into early 2021 and now have 37 qualified internal auditors. We believe that by combining subject matter experts with HS&EP auditors, the audit process becomes an educational opportunity for everyone who participates. Audits include a review and evaluation of site programs and documents, site walk-throughs, employee interviews, and an overall evaluation of the effectiveness of the HS&EP program. Although COVID-19 restricted our ability to travel and conduct in-person audits during 2020, we transitioned to a virtual format and completed all scheduled audits.

# WORKFORCE

At GrafTech, our people are our most important asset. We believe it is not only our responsibility, but our moral obligation, that employees return home in the same condition they arrived. In addition to fostering a safe working environment, we provide our employees with proper safety and job skills training, meaningful work, competitive compensation and benefits, and opportunities for personal and professional growth.





GrafTech believes it is important for management to see and understand what is happening on the plant floor by walking the production floor and observing activity firsthand. We refer to this as “Managing by Walking Around”. Each week, our plant management communicates with our CEO and senior leadership on their contacts with employees, observations from site walk-throughs, and any corrective actions and/or best practices that were implemented to emphasize our shared commitment to health, safety, and environmental performance.

**The “hands-off” program has been fully implemented in our plants for the past 3 years, and we continue to see a decrease in hand and finger injuries—our most common injuries. Since the program began, we reduced this type of injury by 94% and total injuries by 70%.**

We track and measure both leading and lagging health and safety indicators. During 2020, we increased our emphasis on leading indicators that are valuable to making measurable and long-lasting improvements. Examples of our health and safety indicators include pre-job planning reviews, safety walks and inspections, planned job observations, and training.

Our site leadership teams are actively engaged in supporting these objectives, which will improve our health and safety performance. We have added a leading indicator to track the number of pre-job reviews completed. We have also enhanced our Planned Job Observation (PJO) program to zero in on risk identification. This a program we use to observe and evaluate a particular job or process to identify potential hazards.

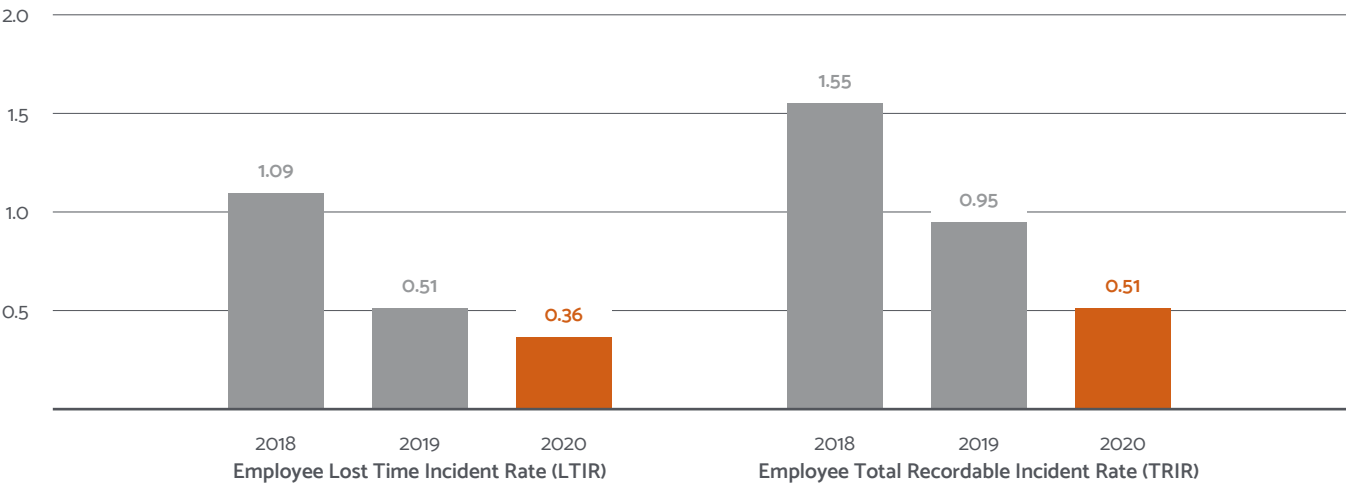
In addition to our emphasis on pre-job planning, we employ a practice we call “Take Two for Safety” to ensure full understanding of the task to be performed and how to perform it safely. In connection with this, there is a renewed focus on employees using behavior-based safety programs to identify their current state of mind and potential distractions that can result in errors being made. Employees are taught to use several methods that provide multiple barriers between themselves and potential risks that could result in injury. If an employee feels a job is unsafe, they are encouraged and empowered to stop work immediately.

Despite the COVID-19 restrictions, we exceeded the number of PJOs planned for 2020 and completed all scheduled training. Sites were creative as they found ways to conduct training, which included holding training outside, offering smaller sessions, and conducting virtual trainings.

In 2020, we completed 25,520 hours of health, safety, and environmental training for our employees.



Performance Highlights



COVID-19 Response

The health and safety of our employees is always a top priority, particularly so throughout the COVID-19 pandemic. At the onset, our leadership team developed a playbook for safe working practices for all employees. Our corporate and site leadership teams continually emphasized health and safety first. Our Human Resources (HR) and HS&EP leadership met on a regular basis to stay apprised of evolving guidance from health organizations and to update the playbook as needed. We also conducted regular health and safety audits to ensure COVID-19 protocols were understood and adhered to properly. Finally, employees were encouraged to ask questions and seek support from their direct managers in times of personal need.

We did not have any layoffs, furloughs, or benefit reductions due to the pandemic.

At our GrafTech manufacturing sites, we communicate regularly with local government agencies to keep them apprised of our commitment to adhering to health and safety mandates in order to keep our employees and their families safe.

GrafTech was able to keep all of our manufacturing facilities operational during 2020 and achieved a 97% on-time delivery performance, demonstrating our commitment to our customers and our employees.





## SPOTLIGHT

# Seadrift Coke Presents at Local Career Expo

Denise Garza, HR Representative at Seadrift Coke, presented at two career expos sponsored by Texas Workforce Solutions of the Golden Crescent in early 2020. The first event was held in Port Lavaca, Texas with over 35 presenters and over 350 students in attendance. The second took place in Gonzales, Texas with over 35 presenters and over 250 students in attendance.

The goal of these local expos is to promote skills training or trade schools as an alternative to college for junior and senior high school students. The expos are also a great opportunity for students to connect with college and university representatives, as well as military recruiters and local businesses, including Seadrift Coke.

# TALENT MANAGEMENT

With approximately 1,300 employees globally, our team offers industry-leading technical services, solutions, and graphite electrode products to the electric arc furnace steel industry. Our people make the difference and their commitment to excellence is key to GrafTech's success. Our objective is to attract the best talent and increase retention among our employees, allowing us to expand our manufacturing expertise, provide superior customer service, and continue to grow our business. GrafTech offers a competitive benefits package anchored by a compensation philosophy focused on rewarding our people for performance and promoting self-development through training that broadens work-related skills. Our leaders work to build a cohesive management team and inspire the best from others, creating a flexible and responsive enterprise.

## Workforce Diversity

Excellence happens when different ideas, different backgrounds, and different experiences come together to pursue a common goal. That is why we embrace individuals who are as diverse as the positions we have to offer. GrafTech operates in various locations across the globe, and as such, workforce diversity is organic to our company culture. Diversity and inclusion are important to GrafTech. Over 30% of our leadership team and over 20% of our Board members are female.

Our affirmative action plans, recruitment policies, and hiring practices support our diversity and inclusion objectives and assign responsibilities at both the corporate and site levels. To hold ourselves accountable to our commitment to diversity, progress toward our diversity and inclusion goals is reported to the Board of Directors annually.

Our managers adhere to policies, procedures, and practices for diverse and inclusive hiring and talent management. We aim to ensure our people have equal opportunities related to job promotions, compensation and benefits, and personal development opportunities.

## Training and Development

Training and development are important aspects of our talent management program. We are proud to be a place where men and women build careers and where people can spend decades having a positive impact on our business and in our industry. We believe continuous improvement can only happen with continual learning, and we have a number of systemic tools to assist employees to do just that.

GrafTech encourages and provides for individual growth through our tuition reimbursement program. We also assist employees who require specialized training as part of a specific job requirement.

As part of our commitment to professional growth, we conduct regular performance reviews for all employees, which includes discussion of goals, career aspirations, and pathways to achievement.

Our Calais, France Apprentice Program continues to be a success in developing local talent, providing high school students and students with one- or two-year degree programs with professional experience in various GrafTech departments such as Maintenance, Engineering, HS&EP, procurement, quality, and continuous improvement. We promote this program on local job boards and through university student forums.





## LOCAL COMMUNITIES

We are involved in the communities where we produce our products, and we remained diligent in these efforts during 2020. Although many of our in-person community events had to be cancelled due to COVID-19 restrictions, we found other ways to help our communities.

In the U.S., we have partnered with the United Way for over 40 years. The United Way focuses on education, income, and health of communities globally. For our U.S.-based operations, we increased our corporate contribution to United Way by 50% in 2020. Additionally, our Seadrift, Texas facility held its annual food drive, driven by the Safety With Action Through Teamwork (SWATT) team. The food drive contributed the equivalent of 6,400 meals and two barrels of food to the Food Bank of the Golden Crescent.

At our Monterrey, Mexico facility, we delivered 2,200 free COVID-19 prevention kits for employees, contractors, and their families on a bi-monthly basis in lieu of holding in person our annual Health and Wellness Week. We also distributed care packages to some of the most vulnerable populations in Monterrey, including 1,850 grocery boxes to families in need in the Apodaca and Nuevo León communities through Lazos que Transforman, a local non-profit private charitable association. Given the success and positive reception of the grocery box program, GrafTech has continued the relationship with Lazos que Transforman into 2021 to assist families in need in our community.

We delivered similar care packages to neighborhoods near our Salvador, Brazil, operation, packaging and delivering 100 food boxes and 100 cleaning kits to the community.

## SOCIETY

As a global manufacturer and local employer, we understand our operations can have a significant impact on society. We take pride in being a good corporate citizen, including being a responsible steward of the environment while also positively supporting our local communities.

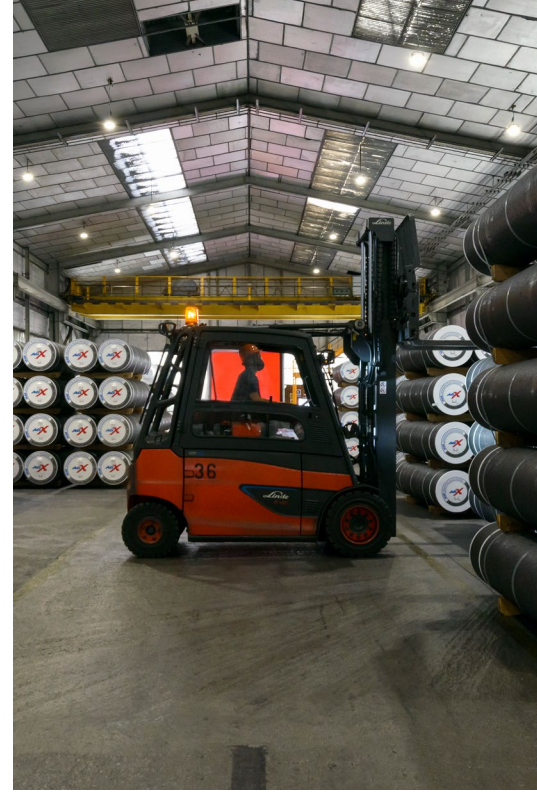
### SPOTLIGHT

## COVID-19 Relief in Salvador

In 2020, we engaged in campaigns promoting measures to prevent the spread of COVID. In June 2020, 100 basic food baskets and 100 hygiene/cleaning kits were distributed in a neighboring community from Candeias city (URBIS II). Hygiene and cleaning kits were also delivered to some Graftech employees and contractors.

In order to contribute to the development of young people from the community surrounding the facility, GrafTech Salvador also donated soccer equipment and made improvements to the local soccer field. Meeting needs identified by local communities is important to GrafTech.





## PRODUCT QUALITY

GrafTech is committed to continuous improvement of our product quality and performance. In 2020, our executive leadership for Operations and Technology collaborated to update our corporate quality system. Our quality system uses KPI tracking and reporting to reinforce best practices. We have a corporate team comprised of quality assurance engineers that assists our global network of quality leaders. Transparency is provided through our Quality Steering Team that regularly reviews quality assurance metrics. Additionally, GrafTech manufacturing sites in Calais, Monterrey, Pamplona, and Salvador are currently ISO 9001:2015 certified, a leading international standard that sets forth guidelines for quality management systems and auditing.

Our corporate quality policy demonstrates our commitment to provide our global customers with quality products, innovative services, and solutions. We strive to achieve the highest levels of customer satisfaction through:

- Development of high quality throughout the entire value chain from our trusted suppliers and partners to our valued customers' feedback
- Continuous improvement of our products, processes, and services to achieve customer satisfaction through quality excellence
- Empowerment of all employees to build sustainable quality
- Innovation and product development to exceed emerging customer needs

## PRODUCTS AND CUSTOMERS

As a global leader in graphite electrodes, we provide our customers with highly engineered products made from quality raw materials. In addition, our Customer Technical Service (CTS) team delivers technical support services throughout the life of the product, helping electric arc furnace operators increase productivity and decrease costs.





# CUSTOMER SERVICE



CTS is the customer support service we provide to help our customers use our electrodes safely and efficiently. Through CTS, we train customers and provide them feedback on optimizing electrode efficiency.

CTS and ArchiTech® Furnace Productivity System together collect pertinent data we use to address the needs of our customers, becoming the voice of the customer. Using this technology, we are able to make a better electrode based on their feedback. Our furnace productivity system, ArchiTech®, adds value for customers and has been installed at customer furnaces around the world. ArchiTech® enables our engineers to work seamlessly with our customers to maximize the performance of their furnaces and provide real-time diagnostics and troubleshooting. This remote functionality was particularly helpful during the pandemic.

We are also focused on process and product improvements, using our R&D facility and onsite process engineers to develop new products.

Our R&D, technology and engineering teams work closely with our sites to trial and implement new equipment and technologies in the electrode production process, such as energy recovery systems, to reduce energy consumption while still producing a superior grade electrode.



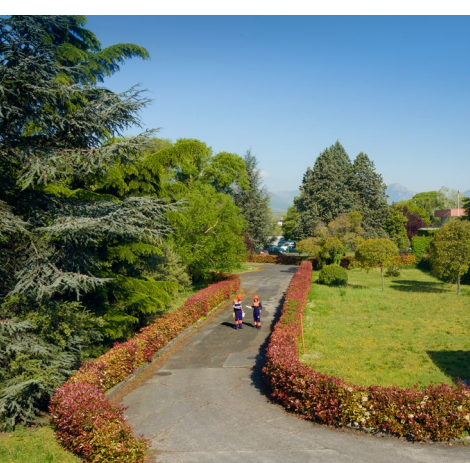
# MATERIAL SOURCING

Material sourcing is driven by GrafTech's Procurement Department. We continuously monitor risks and opportunities around material sourcing and efficiency to help provide for a compliant and diverse supplier base and long-term solutions for the raw materials needed to produce our products.

GrafTech evaluates risks to our sourced materials, such as availability of low sulfur decant oil and petroleum needle coke. Seadrift is not dependent on any single refinery for decant oil, instead purchasing the majority of its raw materials from a number of suppliers.

To mitigate risks from potential curtailments of our operations and increasing competition from other industrial segments for our raw materials, we explore and qualify alternative oils and cokes to not only diversify our supplier base, but also develop long-term supplier relationships with these qualified sources.





# ENVIRONMENTAL MANAGEMENT

GrafTech believes in a strong environmental management system, which is anchored by policies and procedures that allow us to operate in compliance with our regulatory obligations, identify risks, and understand and reduce our environmental impacts. GrafTech is committed to the protection of our communities and environment and we recognize the ISO 14001 standard as best practice for environmental management. Our Pamplona plant received this certification in early 2021

# ENERGY

GrafTech's energy management is integrated into many facets of our operations, including our policies and procedures, process technology modifications, data collection, and performance indicator tracking and measuring.

Both our Calais and Pamplona plants have earned the ISO 50001:2018 certification for their Energy Management Systems. This certification supports GrafTech's energy systems by providing a structure that ensures a policy for energy efficiency, provides for targets and objectives to reach the policy commitments, track trends, and measures results. We also are able to identify energy sources, collect data, find anomalies, and perform corrective action as needed.

# ENVIRONMENT

During 2020, we conducted extensive work to better understand our environmental footprint, including greenhouse gas emissions, air quality, energy, water, and waste. Using 2019 baseline data, we track and report environmental and other business metrics uniformly across our sites.

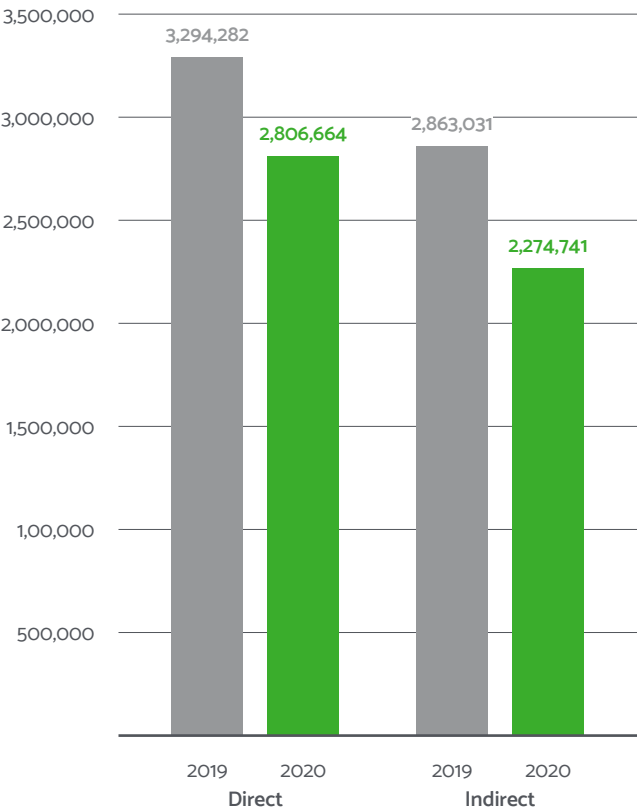




A focus in 2020 has been on identifying new ways to recover heat from our processes, particularly our baking operations. Heat recovery systems will reduce the energy consumption and reduce greenhouse gas (GHG) emissions. In Pamplona, we installed a heat recovery system on one of the site's furnaces, resulting in a 21% reduction in natural gas use and a 14% reduction in emissions for this unit. Based on the results of the trial, we have expanded the use of this technology to additional bake furnaces in 2021. Similar to the Pamplona trial, our Calais plant is in the process of commissioning a feasibility study to look for additional opportunities to use recovered heat not only in the baking operations, but across the site among different processes.

Our Seadrift Coke facility has a 7.5-megawatt steam turbine (co-generation equipment) that is utilized to make electricity from the excess heat that is generated during the calcining process. Seadrift uses as much of the electricity that it needs for the manufacturing process and the remainder is sold to the grid. On an average day, Seadrift can sell approximately 25% of the total electricity generated at the plant to the grid. In 2020, Seadrift sold more than 8.6 million kilowatt hours (31,000 gigajoules) to the grid. The use of this co-generation enables our Seadrift operations to be highly energy efficient and creates an additional source of electricity for the community.

Total Energy Consumed\* (Gigajoules)



\*Energy usage includes data from our headquarter campus, manufacturing facilities, sales offices and warehouses.



SPOTLIGHT

Pamplona Triple ISO Certification

In April 2021, GrafTech Spain received official certificates for passing an audit for three ISO standards, executed by Lloyd's Register, the world's leading provider of independent assessment services. These certifications include a renewal of ISO 9001:2015 Quality System, an updated version of ISO 50001:2018 Energy Management and ISO 14001:2015 Environmental Management System, a new certification for GrafTech.

With this trio of certifications in place, GrafTech benefits from synergies associated with an integrated management system, as well as improved positioning in terms of customer requirements, environmental performance, and cost reduction.

The ISO 14001:2015 certification was achieved in February 2021, following a year-long process, involving the implementation of an environmental management system. The Pamplona site first earned the ISO 50001 and ISO 9001 certifications in 2014 and 2000, respectively.



# EMISSIONS AND AIR QUALITY

Each GrafTech operation has a program that details the standard practices for managing and controlling air emissions.

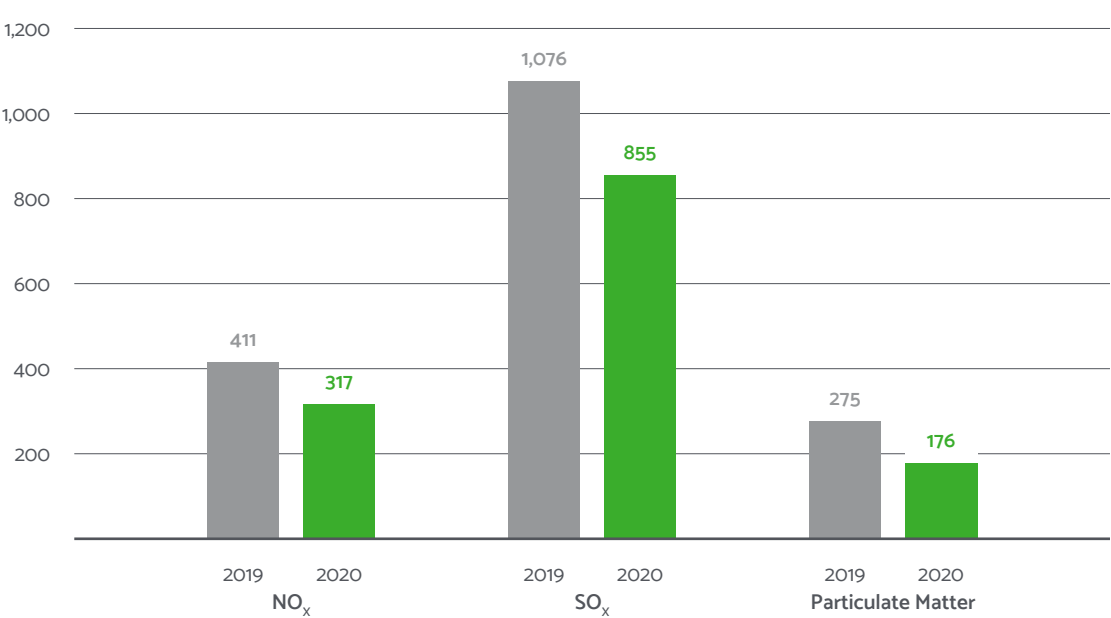
We calculate Scope 1 and 2 emissions using the GHG Protocol methodology. Based on reviewed data, GrafTech has identified the baking processes as the primary driver for our Scope 1 emissions and the graphitizing process for Scope 2 emissions. We have implemented projects in both the baking and graphitizing processes to identify opportunities for energy and emission reductions.

We have undertaken an initiative to improve critical assets, such as our bake and graphitizing furnaces and emission control equipment, with digital controls and predictive alerts, to help identify potential issues and mitigate process interruptions. These enhancements are expected to result in improved process efficiency and reliability in our operations.

In Monterrey, we recently invested in automated controls, which maintain temperatures in the bake furnace thermal oxidizers, resulting in more thorough reduction of air emissions from these operations. We modified our bake ovens to allow for increased air circulation to reduce accumulation of particulate matter in the ovens. Our team in charge of this project meets on a regular basis to report on progress.

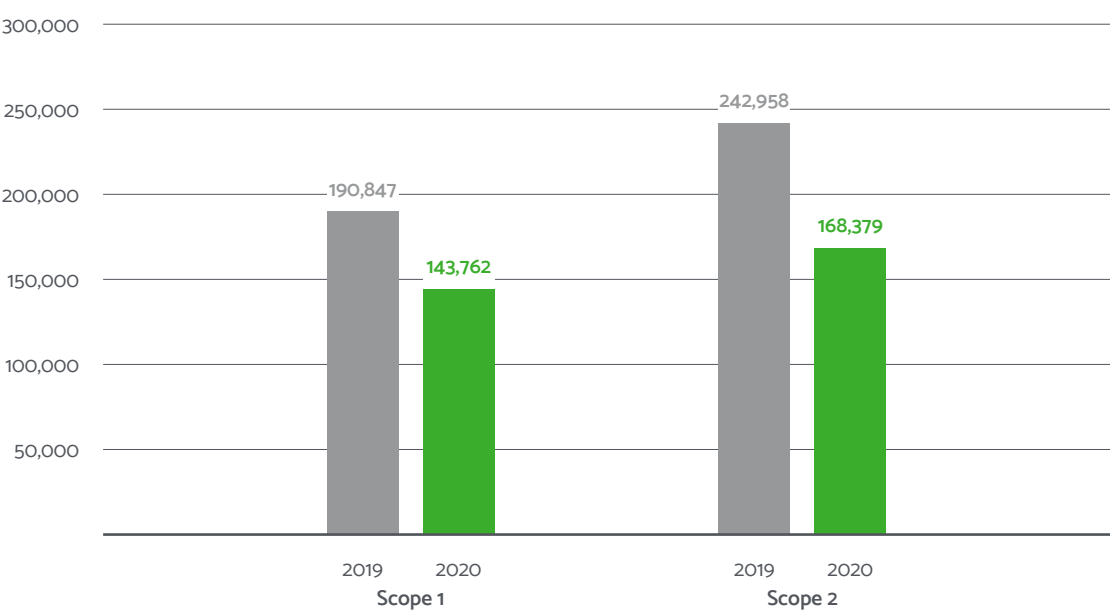
In Calais, our team took steps to reduce particulate matter from the thermal oxidizers. We completed a project to optimize these units, for greater incineration of air emissions. We also executed upgrades to the graphitizing furnaces, which resulted in an increase in production volume, a reduction in the amount of metallurgical coke and electricity used, and a significant reduction in air emissions, with particulate matter concentrations decreasing by more than 50%.

Air Emissions\* (metric tons)



\*Particulate Matter (PM) is reported as total PM in most sites. Some sites only report PM10; therefore, these values have been included in the total PM emissions. Includes data from our manufacturing facilities.

Scope 1 and Scope 2 GHG Emissions\* (mtCO<sub>2</sub>e)



\*Scope 1 GHG emissions are direct emissions from on-site fuel combustion. Scope 1 emissions include our headquarter campus and our manufacturing sites. Scope 2 emissions include all of our facilities headquarter campus, manufacturing facilities, sales offices, and warehouses). Scope 2 GHG emissions are indirect emissions resulting from the generation of electricity, heat, or steam purchased from a utility provider.

SPOTLIGHT

## Monterrey HS&EP

At GrafTech, our employees are actively engaged in efforts to improve HS&EP. It is not only acknowledged and communicated as a priority, but it is clear in our operations when you visit our sites. Our employees in Monterrey, Mexico, are involved in how we translate our health, safety, and environmental commitment into practice.

In 2020, Monterrey kicked-off a Healthy Habits campaign to help employees improve their overall wellbeing. More than 110 employees participated in the program and they have continued it into 2021 based on the success of the first campaign. Monterrey began integrating their behavior-based safety program into their Planned Job Observations, shift start-up meetings and pre-job planning—reinforcing the importance of safety in all aspects of their work. Our Monterrey team continued their work on housekeeping, improving environmental controls and facility upgrades. For example, during 2020, we completed construction of a new raw material handling system and improved management of our dust collection systems.





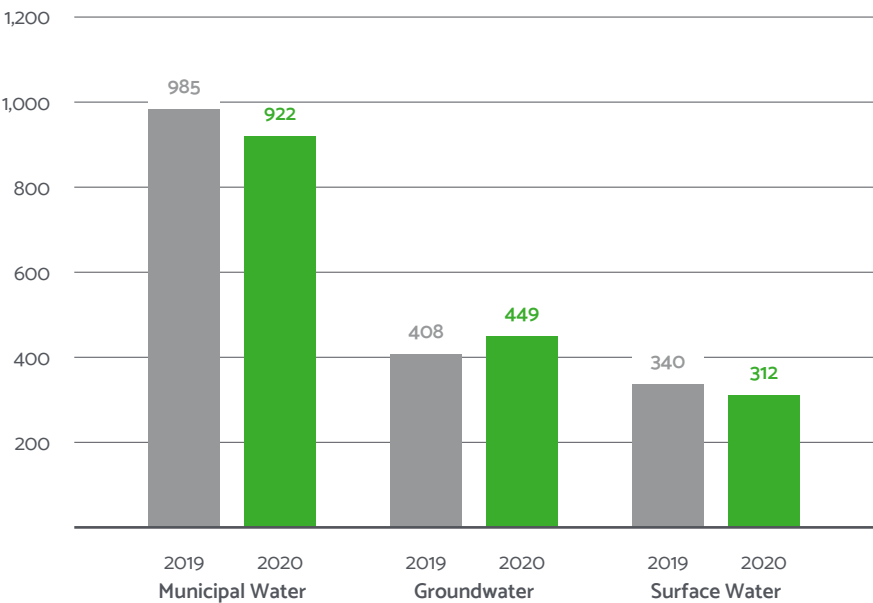


# WATER

Much like our air emissions management program, GrafTech requires that each site maintain a program that details practices to address the requirements of our surface and groundwater protection procedures. Each site monitors their water consumption and seeks ways to reduce water use in their processes and reduce water withdrawal from local sources.

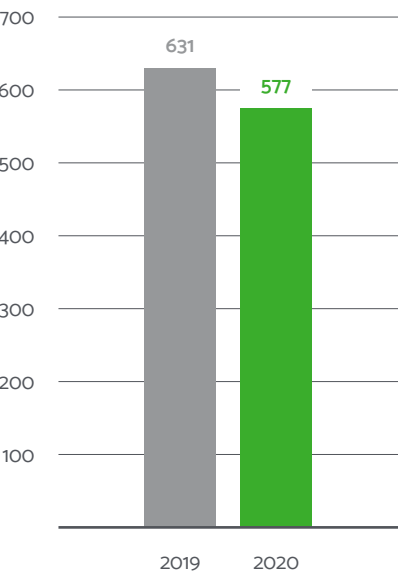
In 2020, we conducted water risk assessments at all our sites using the World Resources Institute Aqueduct™ 3.0 water risk framework. We determined the Monterrey, Mexico area to be a high water stress location. Our site is evaluating their water management program to identify opportunities to adopt the successful recycling programs from our Calais and Pamplona sites.

**Total Water Withdrawals\***  
(megaliters)



\*Includes our headquarter campus and manufacturing facilities.

**Recycled Water\***  
(megaliters)



\*Data is for Calais and Pamplona sites.

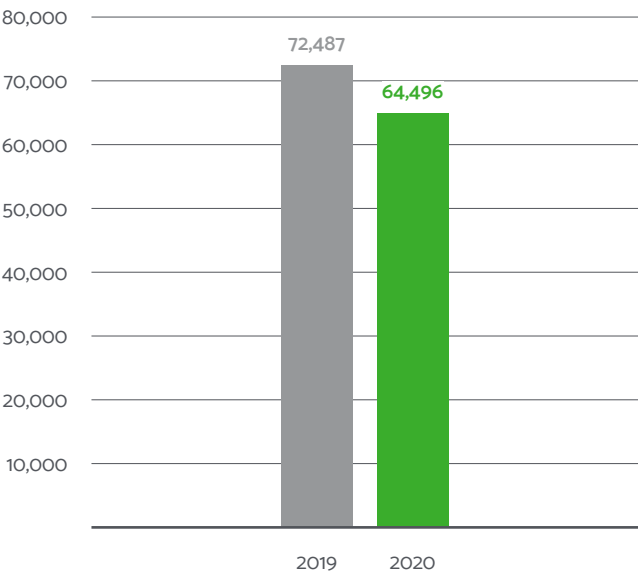
# WASTE

GrafTech maintains an updated inventory for waste generation and disposal at each of our sites. When there are significant changes to the waste inventory, we record explanations for the changes to ensure we are keeping track of trends.

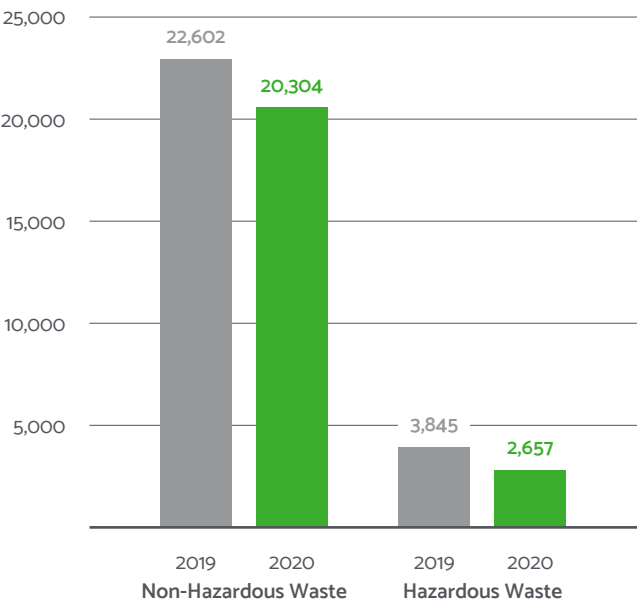
At our Seadrift site, we use decant oil, which is a by-product of the oil refining industry, to produce petroleum needle coke. Needle coke, in addition to coal tar pitch, a by-product of the coal refining process, are integral raw materials to the electrode production process. GrafTech’s use of by-products from the petroleum and coal refining industries to create electrodes, which are used to recycle steel via the electric arc furnace steelmaking route, is an example of how we contribute to a circular economy. Additionally, the graphitizing and machining processes create waste metallurgical coke and graphite that is then reused or sold for beneficial re-use, continuing the life cycle of these materials. In 2020, we sold for beneficial re-use or re-used more than three times the volume of waste that we landfilled.

We continue to recover hydrocarbon vapors generated during needle coke production at our Seadrift site to refine and sell or reuse as gas oil, naphtha, and fuel gas. In 2020, Seadrift generated more than 410,000 barrels of naphtha and fuel oil, an increase from 2019 of 20,000 barrels of recovered material, which was reused in the process or sold.

**Total By-Products to Reuse**  
(metric tons)



**Waste Generated\***  
(metric tons)



\*Waste generated includes manufacturing facilities.



For more information about GrafTech's sustainability efforts, please visit [www.graftech.com](http://www.graftech.com) or contact us at [sustainability@graftech.com](mailto:sustainability@graftech.com).



GrafTech International Ltd.  
982 Keynote Circle  
Brooklyn Heights, Ohio 44131

Statements in this Report regarding the Company that are not historical facts are "forward-looking statements" that involve risks and uncertainties. You can identify these forward-looking statements by the use of forward-looking words such as "will," "may," "plan," "estimate," "project," "believe," "anticipate," "expect," "foresee," "intend," "should," "would," "could," "target," "goal," "continue to," "positioned to," "are confident," or the negative versions of those words or other comparable words. Certain of the risks and uncertainties to which the Company is subject are described in the "Forward Looking Statements" and "Risk Factors" in reports and statements filed by the Company with the U.S. Securities and Exchange Commission. These risks include, without limitation, the ultimate impact that the COVID-19 pandemic has on our business, results of operations, financial condition and cash flows; the possibility that we may be unable to implement our business strategies in an effective manner; the possibility that our manufacturing operations are subject to hazards; changes in, or more stringent enforcement of, health, safety and environmental regulations applicable to our manufacturing operations and facilities; and our dependence on third parties for certain construction, maintenance, engineering, transportation, warehousing and logistics services. The Company does not undertake any obligation to update or revise these forward-looking statements to reflect new events or circumstances except as required by law.

The information in this publication is provided "AS IS" without warranty of any kind, either express or implied, and GrafTech International Ltd. and its subsidiaries assume no liability arising out of the use of it. No portion of this material may be reprinted in any form without the express written permission of GrafTech.