

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022 or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission File Number 001-35243

SUNCOKE ENERGY, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State of or other jurisdiction of
incorporation or organization)

90-0640593
(I.R.S. Employer
Identification No.)

1011 Warrenville Road, Suite 600

Lisle, Illinois 60532

(Address of principal executive offices, including zip code)

(630) 824-1000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Trading symbol(s)</u>	<u>Name of Each Exchange on which Registered</u>
Common Stock, \$0.01 par value	SXC	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. Yes No

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the registrant's common stock on June 30, 2022 (based upon the closing price of \$6.81 on June 30, 2022, the last trading day of the registrant's most recently completed second fiscal quarter, on the New York Stock Exchange) held by non-affiliates was approximately \$563,318,889.

The number of shares of common stock outstanding as of February 17, 2023 was 83,412,818

Portions of the SunCoke Energy, Inc. 2023 definitive Proxy Statement, which will be filed with the Securities and Exchange Commission within 120 days after December 31, 2022, are incorporated by reference in Part III of this Annual Report on Form 10-K.

SUNCOKE ENERGY, INC.

TABLE OF CONTENTS

PART I

Item 1.	Business	1
Item 1A.	Risk Factors	16
Item 1B.	Unresolved Staff Comments	28
Item 2.	Properties	28
Item 3.	Legal Proceedings	29
Item 4.	Mine Safety Disclosures	29

PART II

Item 5.	Market for Registrant’s Common Equity, Related Stockholders Matters and Issuer Purchases of Equity Securities	30
Item 6.	[Reserved]	31
Item 7.	Management’s Discussion and Analysis of Financial Condition and Results of Operations	32
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	41
Item 8.	Financial Statements and Supplementary Data	42
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	73
Item 9A.	Controls and Procedures	73
Item 9B.	Other Information	74
Item 9C.	Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	74

PART III

Item 10.	Directors, Executive Officers and Corporate Governance	75
Item 11.	Executive Compensation	75
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	75
Item 13.	Certain Relationships and Related Transactions, and Director Independence	75
Item 14.	Principal Accounting Fees and Services	75

PART IV

Item 15.	Exhibits and Financial Statement Schedules	76
Item 16.	Form 10-K Summary	80
Signatures		81

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

We have made forward-looking statements in this Annual Report on Form 10-K, including, among others, in the sections entitled “Business,” “Risk Factors,” “Quantitative and Qualitative Disclosures About Market Risk” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Forward-looking statements include all statements that are not historical facts and may be identified by the use of forward-looking terminology such as the words “believe,” “expect,” “plan,” “intend,” “anticipate,” “estimate,” “predict,” “potential,” “continue,” “may,” “will,” “should” or the negative of these terms or similar expressions. Such forward-looking statements are based on management’s beliefs, expectations and assumptions based upon information currently available, and include, but are not limited to, statements concerning our possible or assumed future results of operations, business strategies, financing plans, competitive position, potential growth opportunities (including, among other things, anticipated expansion into the foundry coke market), the influence of competition, and the effects of future legislation or regulations. Forward-looking statements also include statements regarding the potential, assumed, or expected future impacts of COVID-19 and related economic conditions on our business, financial condition and results of operations, and/or potential operating performance. In addition, statements in this Annual Report on Form 10-K concerning future dividend declarations are subject to approval by our Board of Directors and will be based upon circumstances then existing. Forward-looking statements are not guarantees of future performance, but are based upon the current knowledge, beliefs and expectations of SunCoke management, and upon assumptions by SunCoke concerning future conditions, any or all of which ultimately may prove to be inaccurate.

Forward-looking statements involve risks, uncertainties and assumptions. Actual results may differ materially from those expressed in these forward-looking statements. You should not put undue reliance on any forward-looking statements. We do not have any intention or obligation to update any forward-looking statement (or its associated cautionary language), whether as a result of new information or future events, after the date of this Annual Report on Form 10-K, except as required by applicable law.

The risk factors discussed in “Risk Factors” could cause our results to differ materially from those expressed in the forward-looking statements made in this Annual Report on Form 10-K. There also may be other risks that are currently unknown to us or that we are unable to predict at this time. Such risks and uncertainties include, without limitation:

- the potential operating and financial impacts on our operations, or those of our customers and suppliers, and the general impact on our industry and on the U.S. and global economy, resulting from COVID-19 or any other widespread contagion,
- actual or potential impacts of the Russia-Ukrainian crisis on global commodity prices, inflationary pressures, and state sponsored cyber activity;
- the effect of inflation on wages and operating expenses
- volatility and cyclical downturns in the steel industry and in other industries in which our customers and/or suppliers operate;
- changes in the marketplace that may affect our cokemaking business, including the supply and demand for our coke products, as well as increased imports of coke from foreign producers;
- volatility, cyclical downturns and other change in the business climate and market for coal, affecting customers or potential customers for our logistics business;
- changes in the marketplace that may affect our logistics business, including the supply and demand for thermal and metallurgical coal;
- severe financial hardship or bankruptcy of one or more of our major customers, or the occurrence of a customer default or other event affecting our ability to collect payments from our customers;
- our ability to repair aging coke ovens to maintain operational performance;
- age of, and changes in the reliability, efficiency and capacity of the various equipment and operating facilities used in our cokemaking operations, and in the operations of our subsidiaries major customers, business partners and/or suppliers;
- changes in the expected operating levels of our assets;
- changes in the level of capital expenditures or operating expenses, including any changes in the level of environmental capital, operating or remediation expenditures;
- changes in levels of production, production capacity, pricing and/or margins for coal and coke;
- changes in product specifications for the coke that we produce or the coals we mix, store and transport;

- our ability to meet minimum volume requirements, coal-to-coke yield standards and coke quality standards in our coke sales agreements;
- variation in availability, quality and supply of metallurgical coal used in the cokemaking process, including as a result of non-performance by our suppliers;
- effects of geologic conditions, weather, natural disasters and other inherent risks beyond our control;
- effects of adverse events relating to the operation of our facilities and to the transportation and storage of hazardous materials or regulated media (including equipment malfunction, explosions, fires, spills, impoundment failure and the effects of severe weather conditions);
- the existence of hazardous substances or other environmental contamination on property owned or used by us;
- required permits and other regulatory approvals and compliance with contractual obligations and/or bonding requirements in connection with our cokemaking, logistics operations, and/or former coal mining activities;
- the availability of future permits authorizing the disposition of certain mining waste and the management of reclamation areas;
- risks related to environmental compliance;
- our ability to comply with applicable federal, state or local laws and regulations, including, but not limited to, those relating to environmental matters;
- risks related to labor relations and workplace safety;
- availability of skilled employees for our cokemaking, and/or logistics operations, and other workplace factors;
- our ability to service our outstanding indebtedness;
- our indebtedness and certain covenants in our debt documents;
- our ability to comply with the covenants and restrictions imposed by our financing arrangements;
- changes in the availability and cost of equity and debt financing;
- impacts on our liquidity and ability to raise capital as a result of changes in the credit ratings assigned to our indebtedness;
- competition from alternative steelmaking and other technologies that have the potential to reduce or eliminate the use of coke;
- our dependence on, relationships with, and other conditions affecting our customers and/or suppliers;
- consolidation of major customers;
- nonperformance or force majeure by, or disputes with, or changes in contract terms with, major customers, suppliers, dealers, distributors or other business partners;
- effects of adverse events relating to the business or commercial operations of our customers and/or suppliers;
- changes in credit terms required by our suppliers;
- our ability to secure new coal supply agreements or to renew existing coal supply agreements;
- effects of railroad, barge, truck and other transportation performance and costs, including any transportation disruptions;
- our ability to enter into new, or renew existing, long-term agreements upon favorable terms for the sale of coke, steam, or electric power, or for handling services of coal and other aggregates (including transportation, storage and mixing);
- our ability to enter into new, or renew existing, agreements upon favorable terms for logistics services;
- our ability to successfully implement domestic and/or international growth strategies;
- our ability to identify acquisitions, execute them under favorable terms, and integrate them into our existing business operations;
- our ability to realize expected benefits from investments and acquisitions;

- our ability to enter into joint ventures and other similar arrangements under favorable terms;
- our ability to consummate assets sales, other divestitures and strategic restructuring in a timely manner upon favorable terms, and/or realize the anticipated benefits from such actions;
- our ability to consummate investments under favorable terms, including with respect to existing cokemaking facilities, which may utilize by-product technology, and integrate them into our existing businesses and have them perform at anticipated levels;
- our ability to develop, design, permit, construct, start up, or operate new cokemaking facilities in the U.S. or in foreign countries;
- disruption in our information technology infrastructure and/or loss of our ability to securely store, maintain, or transmit data due to security breach by hackers, employee error or malfeasance, terrorist attack, power loss, telecommunications failure or other events;
- the accuracy of our estimates of reclamation and other environmental obligations;
- risks related to obligations under mineral leases retained by us in connection with the divestment of our legacy coal mining business;
- risks related to the ability of the assignee(s) to perform in compliance with applicable requirements under mineral leases assigned in connection with the divestment of our legacy coal mining business;
- proposed or final changes in existing, or new, statutes, regulations, rules, governmental policies and taxes, or their interpretations, including those relating to environmental matters and taxes;
- proposed or final changes in accounting and/or tax methodologies, laws, regulations, rules, or policies, or their interpretations, including those affecting inventories, leases, post-employment benefits, income, or other matters;
- changes in federal, state, or local tax laws or regulations, including the interpretations thereof;
- claims of noncompliance with any statutory or regulatory requirements;
- changes in insurance markets impacting cost, level and/or types of coverage available, and the financial ability of our insurers to meet their obligations;
- inadequate protection of our intellectual property rights;
- volatility in foreign currency exchange rates affecting the markets and geographic regions in which we conduct business; and
- historical consolidated financial data may not be reliable indicators of future results.

The factors identified above are believed to be important factors, but not necessarily all of the important factors, that could cause actual results to differ materially from those expressed in any forward-looking statement made by us. Other factors not discussed herein also could have material adverse effects on us. All forward-looking statements included in this Annual Report on Form 10-K are expressly qualified in their entirety by the foregoing cautionary statements.

PART I

Item 1. Business

Overview

SunCoke Energy, Inc. (“SunCoke Energy,” “SunCoke,” “Company,” “we,” “our” and “us”) is the largest independent producer of high-quality coke in the Americas, as measured by tons of coke produced each year, and has more than 60 years of coke production experience. Coke is produced by heating metallurgical coal in a refractory oven, which releases certain volatile components from the coal, thus transforming the coal into coke. Our coke is primarily used as a principal raw material in the blast furnace steelmaking process as well as in the foundry production of casted iron, and the majority of our sales are derived from blast furnace coke sales made under long-term, take-or-pay agreements. We also export coke to international customers seeking high-quality product for their blast furnaces. We have designed, developed and built, and we currently own and operate five cokemaking facilities in the United States (“U.S.”) with collective nameplate capacity to produce approximately 4.2 million tons of blast furnace coke per year. Additionally, we designed and currently operate one cokemaking facility in Brazil under licensing and operating agreements on behalf of ArcelorMittal Brasil S.A. (“ArcelorMittal Brazil”), which has approximately 1.7 million tons of annual cokemaking capacity.

We also own and operate a logistics business that provides export and domestic material handling and/or mixing services to steel, coke (including some of our domestic cokemaking facilities), electric utility, coal producing and other manufacturing based customers. Our logistics terminals, which are strategically located to reach Gulf Coast, East Coast, Great Lakes and international ports, have the collective capacity to mix and/or transload more than 40 million tons of product annually and have storage capacity of approximately 3 million tons.

We report our business results through three segments: Domestic Coke, Brazil Coke and Logistics.

Domestic Coke

Our Domestic Coke segment consists of cokemaking facilities and heat recovery operations at our Jewell, Indiana Harbor, Haverhill, Granite City and Middletown plants. Our core business model is predicated on providing steelmakers an alternative to investing capital in their own captive coke production facilities and to serve as the long-term supplier of high quality coke by investing in our facilities with leading technology, as well as safety and environmental performance. Our cokemaking ovens utilize efficient, modern heat recovery technology designed to combust the coal’s volatile components during the cokemaking process and use the hot flue gas to generate steam and electricity for sale through steam generation facilities or cogeneration plants, respectively. This differs from by-product cokemaking, which repurposes the coal’s volatile components for other uses. Steam generated is generally sold to customers pursuant to steam supply and purchase agreements, and electricity generated is generally sold into the regional power market or to customers pursuant to energy sales agreements.

We believe our advanced heat recovery cokemaking process has numerous advantages over by-product cokemaking, including producing higher quality coke, using waste heat to generate derivative energy for resale, and reducing the environmental footprint. The Clean Air Act Amendments of 1990 specifically directed the U.S. Environmental Protection Agency (“EPA”) to evaluate our heat recovery coke oven technology as a basis for establishing Maximum Achievable Control Technology (“MACT”) standards for new cokemaking facilities. In addition, each of the four cokemaking facilities that we have built since 1990 has either met or exceeded the applicable Best Available Control Technology (“BACT”), or Lowest Achievable Emission Rate (“LAER”) standards, as applicable, set forth by the EPA for cokemaking facilities at that time. We have constructed the only greenfield cokemaking facilities in the U.S. in over 30 years and are the only North American coke producer that utilizes heat recovery technology in the cokemaking process.

The following table sets forth information about our cokemaking facilities:

Facility	Location	Year of Start Up	Use of Waste Heat	Number of Coke Ovens	Annual Cokemaking Nameplate Capacity ⁽¹⁾ (thousands of tons)	Customer ⁽³⁾	Contract Expiration	Contract Volume (thousands of tons)
Owned and Operated:								
Middletown ⁽²⁾	Middletown, Ohio	2011	Power generation	100	550	Cliffs Steel	December 2032	Capacity
Haverhill II	Franklin Furnace, Ohio	2008	Power generation	100	550	Cliffs Steel	June 2025	Capacity
Granite City	Granite City, Illinois	2009	Steam for power generation	120	650	U.S. Steel	December 2024	Capacity
Indiana Harbor	East Chicago, Indiana	1998	Heat for power generation	268	1,220	Cliffs Steel	October 2023	Capacity
Jewell	Vansant, Virginia	1962	Partially used for thermal coal drying	142	720	Cliffs Steel/ Algoma Steel ⁽⁴⁾	December 2025/ December 2026	400 / 165
Haverhill I	Franklin Furnace, Ohio	2005	Process steam	100	550			
Total				830	4,240			
Operated:								
Vitória	Vitória, Brazil	2007	Steam for power generation	320	1,700	ArcelorMittal Brazil	January 2028	Capacity
Total				1,150	5,940			

- (1) Cokemaking nameplate capacity represents stated capacity for production of blast furnace coke equivalent production. The production of foundry coke tons does not replace blast furnace coke tons on a ton for ton basis, as foundry coke requires longer coking time.
- (2) The Middletown coke sales agreement provides for coke sales on a “run of oven” basis, which includes both blast furnace coke and small coke. Middletown nameplate capacity on a “run of oven” basis is 578 thousand tons per year.
- (3) Customers under long-term, take-or-pay agreements include Cleveland-Cliffs Steel Holding Corporation and Cleveland-Cliffs Steel LLC, both subsidiaries of Cleveland-Cliffs Inc. and collectively referred to as "Cliffs Steel," United States Steel Corporation ("U.S. Steel"), and Algoma Steel Inc. ("Algoma Steel").
- (4) Under the long-term, take-or-pay agreement with Cliffs Steel, Jewell and Haverhill I supplies a combined 400 thousand tons annually for 2022 through 2025. Additionally, the long-term, take-or-pay agreement between Haverhill I and Algoma Steel provides for coke supply to shift to Jewell. Tonnage produced in excess of those contracted under our long-term, take-or-pay agreements at Jewell and Haverhill I is generally sold into the foundry and export coke markets.

Blast Furnace Coke

Our blast furnace coke sales are primarily made pursuant to long-term, take-or-pay agreements with the customers noted in the table above. These agreements require us to produce the contracted volumes of coke and require our customers to purchase such volumes of coke up to a specified tonnage or pay the contract price for any tonnage they elect not to take. As a result, our ability to produce the contracted coke volume is a key determinant of our profitability. Our domestic capacity is largely consumed by these long-term agreements, therefore, we have limited exposure to the domestic spot prices for blast furnace coke.

Our long-term, take-or-pay coke sales agreements contain pass-through provisions for costs we incur in the cokemaking process, including coal and coal procurement costs, subject to meeting contractual coal-to-coke yields, operating and maintenance expenses, costs related to the transportation of coke to our customers, taxes (other than income taxes) and costs associated with changes in regulation. When targeted coal-to-coke yields are achieved, the price of coal is not a significant determining factor in the profitability of these facilities, although it does affect our revenue and cost of sales for

these facilities in approximately equal amounts. However, to the extent that the actual coal-to-coke yields are less than the contractual standard, we are responsible for the cost of the excess coal used in the cokemaking process. Conversely, to the extent our actual coal-to-coke yields are higher than the contractual standard, we realize gains. As coal prices increase, the benefits associated with favorable coal-to-coke yields also increase. These features of our long-term, take-or-pay coke sales agreements reduce our exposure to variability in coal price changes and inflationary costs over the remaining terms of these agreements.

Coke prices in our long-term, take-or-pay agreements also include both an operating cost component and a fixed fee component. During 2022, operating costs under three of our coke sales agreements are fixed subject to an annual adjustment based on an inflation index. Under our other four coke sales agreements, operating costs are passed through to the respective customers subject to an annually negotiated budget, in some cases subject to a cap annually adjusted for inflation, and we share any difference in costs from the budgeted amounts with our customers. Accordingly, actual operating costs in excess of caps or budgets can have a significant impact on the profitability of all of our domestic cokemaking facilities. The fixed fee component for each ton of coke sold to the customer is determined at the time the coke sales agreement is signed and is effective for the term of each sales agreement. The fixed fee is intended to provide an adequate return on invested capital and may differ based on investment levels and other considerations. The actual return on invested capital at any facility is based on the fixed fee per ton and favorable or unfavorable performance on pass-through cost items.

We also sell blast furnace coke into the export coke market, utilizing capacity in excess of that reserved for our long-term, take-or-pay agreements. Export coke sales are generally made on a spot basis at the current market price and do not contain the same provisions as our long-term, take-or-pay agreements discussed above.

Foundry Coke

While the revenues in our Domestic Coke segment are primarily tied to blast furnace coke sales made under long-term, take-or-pay agreements, we also produce and sell foundry coke out of our Jewell cokemaking facility. Foundry coke is a high-quality grade of coke that is used at foundries to melt iron and various metals in cupola furnaces, which is further processed via casting or molding into products used in various industries such as construction, transportation and industrial products. Foundry coke sales are generally made under annual agreements with our customers for an agreed upon price and do not contain take-or-pay volume commitments.

Brazil

Our Brazil segment consists of our cokemaking operations located in Vitória, Brazil, where we operate the ArcelorMittal Brazil cokemaking facility for a Brazilian subsidiary of ArcelorMittal S.A. Revenues from the Brazilian cokemaking facility are derived from licensing and operating fees, which are based upon the level of production required by our customer and full pass-through of the operating costs of the facility.

Logistics

Our Logistics segment consists of Convent Marine Terminal ("CMT"), Kanawha River Terminal ("KRT"), Lake Terminal and Dismal River Terminal ("DRT"). Our terminals act as intermediaries between our customers and end users by providing transloading and mixing services. Materials are transported in numerous ways, including rail, truck, barge or ship. We do not take possession of materials handled but instead derive our revenues by providing handling and/or mixing services to our customers on a per ton basis. CMT is located in Convent, Louisiana, with strategic access to seaborne markets for coal and other industrial materials. The terminal provides loading and unloading services and has direct rail access and the current capability to transload 15 million tons annually with its top of the line ship loader. The facility serves coal mining customers as well as other merchant business, including aggregates (crushed stone), petroleum coke and iron ore. CMT's efficient barge unloading capabilities complement its rail and truck offerings and provide the terminal with the ability to transload and mix a significantly broader variety of materials, including coal, petroleum coke and other materials from barges at its dock. KRT is a leading metallurgical and thermal coal mixing and handling terminal service provider with collective capacity to mix and transload 25 million tons annually through its operations in Ceredo and Belle, West Virginia. Lake Terminal and DRT provide coal handling and mixing services to SunCoke's Indiana Harbor and Jewell cokemaking operations, respectively.

Market Discussion and Competition

Cokemaking

The majority of our current production from our cokemaking business is committed under long-term, take-or-pay agreements. As a result, competition mainly affects our ability to obtain new contracts supporting development of additional cokemaking capacity, including foundry coke, re-contracting existing facilities, as well as the sale of coke in the export market. We direct our marketing efforts principally towards these areas.

The cokemaking market is highly competitive. Competitors include merchant coke producers as well as the cokemaking facilities owned and operated by blast furnace steel companies. The principal competitive factors affecting our cokemaking business include coke quality and price, reliability of supply, proximity to market, access to metallurgical coals and environmental performance. Most of the world's coke production capacity is owned by blast furnace steel companies. The international merchant coke market is largely supplied by Chinese, Colombian and Ukrainian producers, among others, but it can be challenging to maintain high quality coke in the export market, and when coupled with transportation costs, coke imports into the U.S. are often not economical. However, the supply of coke from international merchants does impact our ability to sell tons in excess of those contracted under our long-term, take-or-pay agreements into the coke export market.

We believe we are well-positioned to compete with other coke producers. In recent years, our Domestic Coke segment has accounted for approximately 35 percent of the U.S. blast furnace coke market capacity. We are the only coke producer who has built new cokemaking facilities in the U.S. in over 30 years, which will allow us to absorb additional market share from aging by-product coke batteries owned by other coke producers. Additionally, our facilities and ovens were constructed using proven, industry-leading technology with many proprietary features allowing us to produce consistently higher quality coke than our competitors produce. Our technology also allows us to produce heat that can be converted into steam or electrical power.

We monitor the development of competing technologies carefully. In recent years, steelmakers have begun to explore alternatives to blast furnace technology that require less or alternatives to coke, such as electric arc furnaces. We also monitor ferrous technologies, such as direct reduced iron production, as these could indirectly impact our blast furnace customers.

During the first half of 2022, the price of and demand for export coke out of the U.S. increased as a result of the ongoing global coke trade imbalance, which was driven by a decrease in global coke supply and geopolitical events including the Russian invasion of Ukraine and the related sanctions imposed on Russia in 2022, benefiting our export coke sales. During the second half of 2022, the export coke market declined as compared to the first half of the year due to economic uncertainty, inflation, volatility in commodity pricing and lower Chinese coke prices, resulting in a decrease in price of global export coke.

Logistics

Our principal competitors of CMT are located on the U.S. Gulf Coast or U.S. East Coast. CMT is one of the largest export terminals on the U.S. Gulf Coast and provides strategic access to seaborne markets for coal and other bulk materials. Additionally, CMT is the largest bulk material terminal in the lower U.S. with direct rail access on the Canadian National Railway. In 2022, CMT accounted for approximately 42.5 percent of U.S. thermal coal exports from the U.S. Gulf Coast and approximately 19.5 percent of total U.S. thermal coal exports. CMT has a state-of-the-art ship loader, the largest of its kind in the world. We believe this ship loader has the fastest loading rate available in the Gulf Region, which should allow our customers to benefit from lower shipping costs. Additionally, CMT has a strategic alliance with a company that performs barge unloading services for the terminal, which provides CMT with the ability to transload and mix a significantly broader variety of materials.

Certain CMT customers are impacted by seaborne export market dynamics. Fluctuations in the benchmark price for coal delivery into northwest Europe, as referenced in the Argus/McCloskey's Coal Price Index Report ("API2 index price"), as well as Newcastle index coal prices, as referenced in the Argus/McCloskey's Coal Price Index ("API6 index price"), which reflect low-ash coal prices shipped from Australia, contribute to our customers' decisions to place tons into the export market and thus impact transloading volumes through CMT. During 2022, high natural gas prices resulted in increased global demand for coal to meet European energy needs. Additionally, geopolitical events discussed above further contributed to the increased coal demand in Europe. The API2 index price remained high throughout 2022 as a result of this higher global demand for coal, which has benefited certain CMT customers and resulted in a positive impact on CMT's results in 2022.

Our KRT terminals serve two primary domestic markets, metallurgical coal trade and thermal coal trade. Metallurgical markets are primarily impacted by steel prices and blast furnace operating levels whereas thermal markets are impacted by natural gas prices and electricity demand. Our KRT competitors are generally located within 100 miles of our

operations. KRT has fully automated and computer-controlled mixing capabilities that mix coal to within two percent accuracy of customer specifications. KRT also has the ability to provide pad storage and has access to both CSX and Norfolk Southern rail lines as well as the Ohio River system.

Lake Terminal and DRT provide coal handling and/or mixing services to our Indiana Harbor and Jewell cokemaking facilities, respectively, and therefore, do not have any competitors.

Seasonality

Our revenues in our Domestic Coke segment are largely tied to long-term, take-or-pay agreements and as such, are not seasonal. However, our cokemaking profitability is tied to coal-to-coke yields, which improve in drier weather. Accordingly, the coal-to-coke yield component of our profitability tends to be more favorable in the third quarter. Extreme weather may also challenge our operating costs and production in the winter months for our Domestic Coke segment. KRT service demand fluctuates due to changes in the domestic electricity markets. Excessively hot summer weather or cold winter weather may increase commercial and residential needs for heat or air conditioning, which in turn may increase electricity usage and the demand for thermal coal and, therefore, may favorably impact our logistics business. Additionally, operating costs at CMT are impacted by water levels on the Mississippi River, which are often higher in the spring months.

Raw Materials

Metallurgical coal is the principal raw material for our cokemaking operations. All of the metallurgical coal used to produce coke at our domestic cokemaking facilities is purchased from third-parties. We believe there is an adequate supply of metallurgical coal available in the U.S. and worldwide, and we have been able to supply coal to our domestic cokemaking facilities without any significant disruption in coke production.

Each ton of blast furnace coke produced at our facilities requires approximately 1.4 tons of metallurgical coal. We purchased 6.0 million tons of metallurgical coal in 2022. Metallurgical coal is generally purchased on an annual basis via one-year contracts with costs primarily passed through to our customers in accordance with the applicable long-term, take-or-pay coke sales agreements. Occasionally, shortfalls in deliveries by metallurgical coal suppliers require us to procure supplemental coal volumes. As with typical annual purchases, the cost of these supplemental purchases is also generally passed through to our customers. Most metallurgical coal procurement decisions are made through a coal committee structure with customer participation. The customer can generally exercise an overriding vote on most coal procurement decisions. In 2023, our metallurgical coal contracts are generally based on coke production requirements. Refer to our Management's Discussion and Analysis for further detail on our coal contractual obligations.

Transportation and Freight

For inbound transportation of metallurgical coal purchases, our facilities that access a single rail provider have long-term transportation agreements, and where necessary, coal-mixing agreements that run concurrently with the associated long-term, take-or-pay coke sales agreements for the facility. At facilities with multiple transportation options, including rail and barge, we enter into short-term transportation contracts from year to year. Delivery costs, and annual volume commitments included in certain agreements, are generally passed through to the customers.

For coke sales, the point of delivery varies by agreement and facility. The destination for coke sales under long-term, take-or-pay agreements from our Jewell and Haverhill cokemaking facilities is generally designated by the customer and shipments are made by railcar under long-term transportation agreements, which may include annual volume commitments, and are generally passed through to our customers. At our Middletown, Indiana Harbor and Granite City cokemaking facilities, coke is delivered primarily by a conveyor belt leading to the customer's blast furnace, with the customer responsible for additional transportation costs, if any. Most transportation and freight costs in our Logistics segment are paid by the customer directly to the transportation provider.

Research and Development and Intellectual Property and Proprietary Rights

Our research and development program seeks to improve existing and develop promising new cokemaking technologies, including new product development, and enhance our heat recovery processes. Over the years, this program has produced numerous patents related to our heat recovery coking design and operation, including patents for pollution control systems, oven pushing and charging mechanisms, oven flue gas control mechanisms and various others. Additionally, we have continued to successfully utilize our existing coke ovens to produce foundry coke in addition to our primary product of blast furnace coke.

At Vitória, Brazil, where we operate one cokemaking facility on behalf of ArcelorMittal Brazil, we have intellectual property and licensing agreements in place for the entity's use of our technology.

Human Capital Management

Our human capital strategy is focused on attracting, developing and retaining diverse talent. At SunCoke we foster an inclusive work environment where our employees are respected, trusted and feel empowered to provide value as individuals and as a collaborative team. Our employees offer a fresh perspective on SunCoke operations. We welcome their ideas on process improvement and value each employee's contribution across the business. Company leadership and our Board of Directors are actively involved in overseeing the Company's human capital management programs. The leadership of our Human Resources department, in partnership with local Human Resources and General Managers, as well as our Legal department, including our Chief Compliance Officer, sponsor the development and oversight of all human capital programs in the organization including: (i) safety, (ii) workforce composition, recruitment and retention, (iii) culture and our commitment to diversity, equity and inclusion, (iv) workforce stability, (v) employee development and training, (vi) benefits, (vii) talent management and total compensation, and (viii) ethics and compliance.

Workforce Culture

Our culture at SunCoke is driven by our core values. SunCoke's values of excellence, innovation, commitment, integrity and stewardship are at the heart of who we are and how we work every day. They guide our actions and decisions so we can always strive to do the right thing for our stakeholders, our business and each other.

- Excellence: expect the best from yourself, remove obstacles, inspire and support others, embrace diversity and celebrate success.
- Innovation: master the science and process, create a better way, find a better solution and push the envelope.
- Commitment: deliver results, be accountable, work as a team, continuously improve and grow and always communicate effectively.
- Integrity: do what is right, say what you mean, do what you say, earn trust and treat others with respect.
- Stewardship: provide safe, reliable and environmentally sound operations for our people and their families, our customers and the communities where we do business.

Workforce Composition, Recruitment and Our Commitment to Diversity, Equity and Inclusion ("DEI")

As of December 31, 2022, we have 887 employees in the U.S. Approximately 40 percent of our domestic employees, principally at our cokemaking operations, are represented by the United Steelworkers union under various local collective bargaining agreements. Additionally, approximately 3 percent of our domestic employees are represented by the International Union of Operating Engineers.

As of December 31, 2022, we have 285 employees at the cokemaking facility in Vitória, Brazil, all of whom are represented by a union under a labor agreement.

We recognize that our commitment to advance a diverse, equitable and inclusive environment starts with how we put that vision into practice inside our company. We incorporate diversity into recruiting, training, developing and retaining our employees. We partner with reputable recruitment firms to fill key positions. Through those partnerships, we have a commitment to fill our candidate slates with a diverse group of qualified candidates. Hiring managers then focus on ensuring a qualified diverse pool of candidates are interviewed and considered for job openings. In 2022, we required all frontline leaders and all SunCoke management to attend a diversity and inclusion training. The training was conducted by an outside firm to further develop the ability to foster diversity and inclusion and create an environment where everyone feels valued and has the opportunity to succeed.

Approximately 9 percent of the Company's global workforce is female, and minorities represent approximately 17 percent of the Company's U.S. workforce. The tables below provide breakdowns of gender representation globally and racial/ethnic group representation for U.S. employees.

Gender Representation for Global Employees

	Female		Male	
	Number of employees	Percent of employee level	Number of employees	Percent of employee level
Executive ⁽¹⁾	5	36 %	9	64 %
Non-Executive Management ⁽²⁾	28	27 %	77	73 %
<i>Senior Leaders</i> ⁽³⁾	33	28 %	86	72 %
Professionals ⁽⁴⁾	31	31 %	68	69 %
All Other Employees ⁽⁵⁾	47	5 %	907	95 %
Grand Total	111	9 %	1061	91 %

Racial/Ethnic Representation of US Employees

	Asian		Black or African American		Hispanic or Latino		White		Other	
	Number of employees	Percent of employee level	Number of employees	Percent of employee level	Number of employees	Percent of employee level	Number of employees	Percent of employee level	Number of employees	Percent of employee level
Executive ⁽¹⁾	1	7 %	0	— %	0	— %	13	93 %	0	— %
Non-Executive Management ⁽²⁾	3	3 %	3	3 %	5	5 %	83	88 %	1	1 %
<i>Senior Leaders</i> ⁽³⁾	4	4 %	3	3 %	5	4 %	96	88 %	1	1 %
Professionals ⁽⁴⁾	4	5 %	2	3 %	2	3 %	66	89 %	0	— %
All Other Employees ⁽⁵⁾	0	— %	72	10 %	52	7 %	571	82 %	9	1 %
Grand Total	8	1 %	77	9 %	59	7 %	733	82 %	10	1 %

(1) Represents Executives/Senior Officers and Managers as defined by the EEO-1 Job Classification Guide

(2) Represents First/Mid Officers and Managers as defined by the EEO-1 Job Classification Guide

(3) Represents a weighted average of Executive Management and Non-Executive Management

(4) Represents Professionals and Administrative Support Workers as defined by the EEO-1 Job Classification Guide

(5) Represents all other classified employees as defined by the EEO-1 Job Classification Guide

Workforce Stability & Leadership Experience

Our commitment to employee retention through our talent management, benefits, performance management and total compensation programs is shown through our low turnover rate of less than 1 percent in 2022. The stability of our workforce is anchored by our experienced corporate leadership team along with our General Managers that lead the day-to-day operations at our facilities. Our leaders each have an average of nearly 20 years of leadership experience and an average tenure (or length of service) of over 10 years with SunCoke.

Employee Development & Training

SunCoke provides a robust training program that meets or exceeds all applicable regulatory requirements. In addition to the annual interactive video-based SunCoke Code of Business Conduct and Ethics training we provide to all employees, we also provide specialized trainings on an as-needed basis for current topics throughout the year. Over the past several years, special training topics have included Active Shooter Preparedness, Harassment, Worker's Compensation, Diversity and Inclusion, Conducting Effective Investigations, Retirement Planning, and Substance Abuse Awareness.

SunCoke's Personal Information & Privacy Policy outlines specific procedures to ensure that employees handle sensitive information in a secure and responsible manner. The Personal Information & Privacy Policy is updated to remain consistent with data security best practices. SunCoke utilizes a variety of information security training methods, including

training segments on data security best practices and periodic security awareness communications that remind employees to stay vigilant with respect to data security.

We believe in developing our employees both within their daily roles and to be ready for their next assignment at SunCoke. Development occurs in the form of leadership training, cross training, stretch assignments, and on the job training. For example, in 2022, through partnership with a global leadership consulting firm, SunCoke Human Resources leaders delivered frontline leadership training courses to field new leaders and supervisors. The courses focus on a number of areas that are essential for frontline leadership development, including training on high-quality decision making, communication, coaching, and improving workplace performance.

We pride ourselves on being a lean workforce that focuses on developing and promoting talent internally. We engage in succession planning to ensure that development and training opportunities are identified for high performing talent, preparing potential successors for our most critical roles.

Benefits

We offer comprehensive benefits to our employees and their families, including health care coverage, retirement benefits, life and disability insurance, competitive vacation and leave policies. We also offer supplemental benefits programs designed to enhance the daily life and well-being of our employees, including: supplemental life insurance for all eligible family members, supplemental short-term disability, a legal services plan, a weight-loss program, an identity theft and device protection program, financial retirement planning education and coaching, paid-time off (including time for community service), tuition reimbursement, health management for chronic conditions, a 24/7 employee assistance program, and telemedicine.

Talent Management and Total Compensation

Our full-year performance management process begins with setting annual goals for the Company, which guide the development of functional, local and individual employee goals. Employees and their managers are accountable for the goals and must review their performance against the goals on an ongoing basis. We provide employee base wages that are competitive and consistent with employees' positions, skill levels, experience, and geographic location. We use an annual review process to evaluate employees' performance and assist in their development. We believe that individual performance and the results of the Company are directly linked, which is why a significant portion of employee compensation is performance-based. Our short-term incentives include both financial metrics as well as performance-based environmental and safety metrics. The level of pay at risk increases progressively with positions of greater responsibility, with long-term cash and equity incentives with multi-year vesting periods granted at the Director, Vice President and Senior Vice President levels. Further, below the Director level, top performers may be granted long-term cash and equity incentives with multi-year vesting for retention. This helps the Company to retain those identified as having the top skills and abilities that are critical to our business.

Safety

We live by the ethos: Think Safe. Act Safe. Be Safe.

Our top priority has always been the safety and health of our employees, contractors and visitors.

Safety is so important to SunCoke that we include safety in our core values and also incorporate safety as a metric in our short-term incentive program. We have an ambition of zero incidents and injuries in the workplace. To reach our goal, we follow our Safety Vision, which is comprised of five core components including:

- Visible safety leadership - Site and corporate leadership have made a commitment to safety as the paramount value within the Company and our site leadership practices visible safety leadership on a daily basis.
- Communication and training - All team members and contractors take responsibility for their own safety and the safety of those around them, and we train to ensure proper safety knowledge.
- Safe work practices - All team members and contractors take the time necessary to properly identify and mitigate all hazards and safely do each job.
- Incident investigation – We comply with all applicable laws and regulations and perform root cause analysis on all incidents.
- Continuous improvement – We are always focused on preventing safety incidents and Thinking Safe, Acting Safe and Being Safe.

Our target for Total Recordable Incident Rate ("TRIR") at SunCoke for 2022 was 0.80 company-wide, which includes both employees and contractors. We improved our safety performance in 2022 (0.69 TRIR).

Our excellent safety record is best understood in comparison to industry-wide safety performance. According to the Bureau of Labor Statistics, the TRIR of Other Petroleum and Coal Products (Coke) Manufacturing was 4.3 for 2021 and 2.8 for the Iron and Steel Mills sector, based on the most recent data available. Our year-over-year safety performance is consistently significantly lower than average industry-wide rates, demonstrating our strong commitment to safety.

Year	Total TRIR
2020	0.81
2021	0.76
2022	0.69

Ethics & Compliance

We have adopted a Code of Business Conduct and Ethics that applies to all of our officers, directors and employees, including senior financial officers and executives. Our Code of Business Conduct and Ethics, along with our Core Values, establish the principles that guide our daily actions to uphold the highest standards of ethical and legal behavior. Whether working with customers, vendors, business partners or neighbors, we always strive to act with integrity. All employees must complete annual training on our Code of Business Conduct and Ethics, which we review and update as needed. We educate all employees to avoid potential conflicts of interest. Our Prohibited Payments and Political Contributions Policy addresses payments made to U.S. officials, including campaign contributions. Our Gifts, Entertainment and Sponsored Travel Policy provides guidance regarding business courtesies, including reporting obligations and value limitations. We also have a Human Rights Policy, which affirms our commitment to a fair living wage for all employees.

Guidance & Reporting Without Fear of Retaliation

All employees, officers and directors must report suspected policy violations of our Code of Business Conduct and Ethics to the Compliance Team, which is led by our Chief Compliance Officer and includes representatives from our Human Resources and Legal departments. They can do so through a variety of channels, including, but not limited to, directly reporting to a supervisor, providing email or verbal reports directly to the Compliance Team and using our confidential, third-party 24/7 reporting hotline or website. Calls and online submissions are anonymous, unless the notifying party discloses his or her identity. We take the anonymity of these communications seriously and SunCoke's Compliance Team follows up on each submission. In addition to the anonymous hotline, hourly employees represented by a collective bargaining unit can also file a report using the applicable union grievance process.

Legal and Regulatory Requirements

Our operations are subject to extensive governmental regulation, including environmental laws, which are a significant factor in our business. The following discussion summarizes the principal legal and regulatory requirements that we believe may significantly affect us.

Permitting and Bonding

- **Permitting Process for Cokemaking Facilities.** The permitting process for our cokemaking facilities is administered by each state individually. However, the main requirements for obtaining environmental construction and operating permits are found in the federal regulations. A construction permit allows construction and commencement of operations at the facility and is generally valid for at least 18 months. Generally, construction commences during this period, while many states allow this period to be extended in certain situations. A facility's operating permit may be a state operating permit or a Title V operating permit.
- **Air Quality.** Our cokemaking facilities employ MACT standards designed to limit emissions of certain hazardous air pollutants. Specific MACT standards apply to oven door leaks, charging, oven pressure, pushing and quenching. Certain MACT standards for cokemaking facilities were developed using test data from SunCoke's Jewell cokemaking facility located in Vansant, Virginia. Additionally, under applicable federal air quality regulations, permitting requirements may differ among facilities, depending upon whether the cokemaking facility will be located in an "attainment" area—i.e., one that meets the national ambient air quality standards ("NAAQS") for certain pollutants, or in a "non-attainment" or "unclassifiable" area. The status of an area may change over time as new NAAQS standards are adopted, resulting in an area changing from one status or classification to another. In an attainment area, the facility must install air pollution control equipment or employ BACT. In a non-attainment area, the facility must install air pollution control equipment or employ procedures that meet LAER standards. LAER standards are the most stringent emission limitation achieved in practice by existing facilities. Unlike the BACT analysis, cost is generally not considered as part of a LAER analysis, and emissions in a non-attainment area must be offset by emission reductions obtained from other sources. Any changes in attainment status for areas where our facilities are located presents a risk that we may be required to install additional pollution controls, which may require us to incur greater operating costs at those facilities.
 - More stringent NAAQS for ambient nitrogen dioxide ("NO₂") and sulfur dioxide ("SO₂") went into effect in 2010. In July 2013, the EPA identified or "designated" as non-attainment 29 areas in 16 states where monitored air quality showed violations of the 2010 1-hour SO₂ NAAQS. In December 2017, EPA issued a final designation of attainment or unclassifiable for all areas where our facilities are located. These designations mean that no action is required for the facilities with respect to SO₂ emissions at this time. However, it is possible for these areas to be redesignated in the future as non-attainment areas. If redesignated, we may be required to install additional pollution controls and incur greater costs of operating at those of our facilities located in areas that EPA determines to be non-attainment with the 1-hour SO₂ NAAQS.
 - In 2012, more stringent NAAQS for fine particulate matter ("PM"), or PM 2.5, went into effect. In January 2015, the areas where the Granite City and Indiana Harbor facilities are located were designated unclassifiable for PM 2.5, and the areas where the Haverhill and Jewell facilities are located were designated unclassifiable/attainment for PM 2.5. In April 2015, the area where the Middletown facility is located was designated unclassifiable/attainment for PM 2.5. These designations mean that no action is required for the facilities with respect to PM 2.5 emissions at this time. However, it is possible for these areas to be redesignated in the future as non-attainment areas. If redesignated, we may be required to install additional pollution controls and incur greater costs of operating at those of our facilities located in areas that EPA determines to be non-attainment with the annual PM 2.5 NAAQS.
 - In 2015, the EPA revised the existing NAAQS for ground level ozone to make the standard more stringent. In January 2018, EPA designated the areas where the Haverhill and Jewell facilities are located as attainment/unclassifiable for ozone. In June 2018, EPA designated the areas where the Granite City, Indiana Harbor, and Middletown facilities are located as marginal nonattainment for ozone. The status of the area where the Indiana Harbor facility is located was challenged in litigation and upheld in July 2020. As a result of the same litigation, the status of the area where the Granite City facility is located was remanded to EPA, which finalized the area as nonattainment in January 2021. On June 9, 2022, the U.S. EPA redesignated the area where the Middletown facility is located as an attainment area for the 2015 ozone NAAQS based on a request for redesignation by the Ohio Environmental Protection Agency on December 21, 2021. Nonattainment designations under the new standard and any future more stringent standard for ozone have two potential impacts: (1) demonstrating compliance with the standard using dispersion modeling for permitting new facilities or significant new projects may be more difficult; and (2) facilities operating in areas that are classified as moderate non-attainment areas may be required to install

Reasonably Available Control Technology (“RACT”) or demonstrate that they already meet RACT standards. While we are not able to determine the extent to which the 2015 ozone standard will impact our business at this time, it presents a potential risk of having an impact on our operations.

- The EPA adopted a rule in 2010 requiring a new facility that is a major source of greenhouse gases (“GHGs”) to install equipment or employ BACT procedures. Currently, there is little information on what may be acceptable as BACT to control GHGs (primarily carbon dioxide from our facilities), but the database and additional guidance may be enhanced in the future.
- Several states have additional requirements and standards other than those in the federal statutes and regulations. Many states have lists of “air toxics” with emission limitations determined by dispersion modeling. States also often have specific regulations that deal with visible emissions, odors and nuisance. In some cases, the state delegates some or all of these functions to local agencies.
- **Wastewater and Stormwater.** Our heat recovery cokemaking technology does not discharge process wastewater as is typically associated with by-product cokemaking. Our cokemaking facilities, in some cases, have non-process wastewater and/or stormwater discharge permits.
- **Waste.** The primary solid waste product from our heat recovery cokemaking technology is calcium sulfate from flue gas desulfurization, which is generally taken to a solid waste landfill. The material from periodic cleaning of heat recovery steam generators has been disposed of off-site as hazardous waste. Our facilities only generate wastes and do not have permits for waste transportation, storage or disposal.
- **U.S. Endangered Species Act.** The U.S. Endangered Species Act of 1973 and certain counterpart state regulations are intended to protect species whose populations allow for categorization as either endangered or threatened. With respect to permitting additional cokemaking facilities, protection of endangered or threatened species may have the effect of prohibiting, limiting the extent of or placing permitting conditions on soil removal, road building and other activities in areas containing the affected species. Based on the species that have been designated as endangered or threatened on our properties and the current application of these laws and regulations, we do not believe that they are likely to have a material adverse effect on our operations.
- **Permitting and Bonding for Former Coal Mining Operations.** The Surface Mining Control and Reclamation Act of 1977 (“SMCRA”) and applicable state equivalents govern mining permits and reclamation plans, documents defining ownership and agreements pertaining to coal, minerals, oil and gas, water rights, rights of way and surface land and documents required by the Office of Surface Mining Reclamation and Enforcement’s (“OSM’s”) Applicant Violator System.

We currently have no applications pending for new SMCRA permits, but hold several permits for which reclamation is incomplete.

Our reclamation obligations under applicable environmental laws could be substantial. Under accounting principles generally accepted in the U.S. (“GAAP”), we are required to account for the costs related to the closure of mines and the reclamation of the land upon exhaustion of coal reserves. The fair value of an asset retirement obligation is recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. At which time, the present value of the estimated asset retirement costs is capitalized as part of the carrying amount of the long-lived asset. At December 31, 2022, we had an asset retirement obligation of \$2.9 million related to estimated mine reclamation costs. The amounts recorded are dependent upon a number of variables, including the estimated future retirement costs, inflation rates, and the assumed credit-adjusted interest rates. Our future operating results would be adversely affected if these accruals were determined to be insufficient. These obligations are unfunded. Failure to comply with the regulatory requirements can result in sanctions.

- **Bonding Requirements for Permits Related to Former Coal Mining Operations and Coal Terminals with Surface Mining Permits.** Before a SMCRA permit or a surface mining permit is issued, a mine operator must submit a bond or other form of financial security to guarantee the payment and performance of certain long-term mine closure and reclamation obligations. The costs of these bonds or other forms of financial security have fluctuated in recent years and the market terms of surety bonds generally have become less favorable to those entities with legacy mining obligations or terminal operators and others with such permits. These changes in the terms of such bonds have been accompanied, at times, by a decrease in the number of companies willing to issue surety bonds. As of December 31, 2022, we have posted \$9.6 million in surety bonds or other forms of financial security for future reclamation.

Regulation of Operations

- **Clean Air Act.** The Clean Air Act ("CAA") and similar state laws and regulations affect our cokemaking operations, primarily through permitting and/or emissions control requirements relating to criteria pollutants and MACT standards. The CAA air emissions programs that may affect our operations, directly or indirectly, include, but are not limited to: the Acid Rain Program; NAAQS implementation for SO₂, PM, NO₂, lead, ozone, and carbon monoxide; GHG rules; the Cross-State Air Pollution Rule; MACT emissions standards for hazardous air pollutants; the Regional Haze Program; New Source Performance Standards ("NSPS"); and New Source Review.
 - The CAA requires, among other things, the regulation of hazardous air pollutants through the development and promulgation of various industry-specific MACT standards. Our cokemaking facilities are subject to two categories of MACT standards. The first category applies to pushing and quenching. The second category applies to emissions from charging and coke oven doors. The EPA is required to make a risk-based determination for pushing and quenching emissions and determine whether additional emissions reductions are necessary. In 2016, EPA issued a request for information and testing to our cokemaking facilities and other companies as part of its residual risk and technology review of the MACT standard for pushing and quenching, and a technology review of the MACT standard for coke ovens and charging emissions. Testing was conducted by our cokemaking facilities in 2017. EPA was required to finalize any changes to these MACT standards by December 26, 2022 pursuant to a settlement agreement with environmental groups. However, in June 2022, EPA petitioned the court to extend the deadline, which the Court decided in November 2022 to extend to a May 23, 2024 deadline. EPA issued a new information request to our cokemaking facilities and other companies in 2022 associated with this rulemaking. While we are not able to determine the extent to which any new standards would impact our business at this time, it presents a potential risk of having an impact on our operations and costs.
 - The Regional Haze program under the CAA requires that states submit State Implementation Plans that demonstrate reasonable progress towards achieving natural visibility conditions in Class I areas. On November 5, 2020, the Virginia Department of Environmental Quality ("VDEQ") requested that the Jewell facility conduct an analysis of potential controls for SO₂ under the Regional Haze program. VDEQ is currently reviewing Jewell's determination that the installation of new controls is not feasible and any new requirements should be limited to operating pollution controls already present at the facility. While we are not able to determine the extent to which a different determination by VDEQ or EPA would impact our business at this time, it presents a potential risk of having an impact on our operations and costs at the Jewell facility.
 - On April 6, 2022, EPA proposed a Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone NAAQS, which includes requirements applicable to certain coke plant operations. SunCoke submitted comments on the proposed rule requesting clarification that the rule does not apply to our facilities. While we are not able to determine the extent to which a different determination by EPA would impact our business at this time, it presents a potential risk of having an impact on our operations and costs at certain of our facilities.
- **Terminal Operations.** Our terminal operations located along waterways and the Gulf of Mexico are also governed by permitting requirements under the CWA (as defined below) and CAA. These terminals are subject to U.S. Coast Guard regulations and comparable state statutes regarding design, installation, construction, and management. Many such terminals owned and operated by other entities that are also used to transport coal and petcoke, including for export, have been pursued by environmental interest groups for alleged violations of their permits' requirements, or have seen their efforts to obtain or renew such permits contested by such groups. While we believe that our operations are in material compliance with these permits, it is possible that such challenges or claims will be made against our operations in the future. Moreover, our terminal operations may be affected by the impacts of additional regulation on petcoke or on the mining of all types of coal and use of thermal coal for fuel, which is restricting supply in some markets and may reduce the volumes of coal that our terminals manage.
- **Federal Energy Regulatory Commission.** The Federal Energy Regulatory Commission ("FERC") regulates the sales of electricity from our Haverhill and Middletown facilities, including the implementation of the Federal Power Act ("FPA") and the Public Utility Regulatory Policies Act of 1978 ("PURPA"). The nature of the operations of the Haverhill and Middletown facilities makes each facility a qualifying facility under PURPA, which exempts the facilities and the Company from certain regulatory burdens, including the Public

Utility Holding Company Act of 2005 (“PUHCA”), limited provisions of the FPA, and certain state laws and regulation. FERC has granted requests for authority to sell electricity from the Haverhill and Middletown facilities at market-based rates and the entities are subject to FERC’s market-based rate regulations, which require regular regulatory compliance filings.

- **Clean Water Act of 1972.** The Clean Water Act of 1972 (“CWA”) may affect our operations by requiring water quality standards generally and through the National Pollutant Discharge Elimination System (“NPDES”) program. Regular monitoring, reporting requirements and performance standards are requirements of NPDES permits that govern the discharge of pollutants into water. Discharges must either meet state water quality standards or be authorized through available regulatory processes such as alternate standards or variances. Additionally, through the CWA Section 401 certification program, states have approval authority over water discharge permits or licenses that might result in a discharge to their waters. Similarly, for permitting or any future water intake and/or discharge projects, our facilities could be subject to the Army Corps of Engineers Section 404 permitting process.
- **Resource Conservation and Recovery Act.** We may generate wastes, including “solid” wastes and “hazardous” wastes that are subject to the Resource Conservation and Recovery Act (“RCRA”) and comparable state statutes. The EPA has limited the disposal options for certain wastes that are designated as hazardous wastes under RCRA. Furthermore, it is possible that certain wastes generated by our operations that currently are exempt from regulation as hazardous wastes may in the future be designated as hazardous wastes, and therefore be subject to more rigorous and costly management, disposal and clean-up requirements. Certain of our wastes are also subject to Department of Transportation regulations for shipping of materials. Any changes to hazardous waste standards or the constituents in the wastes generated at our facilities presents a potential risk of having an impact on our operations and cost structure.
- **Comprehensive Environmental Response, Compensation, and Liability Act.** Under the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), also known as Superfund, and similar state laws, responsibility for the entire cost of clean-up of a contaminated site, as well as natural resource damages, can be imposed upon current or former site owners or operators, or upon any party who released one or more designated “hazardous substances” at the site, regardless of the lawfulness of the original activities that led to the contamination. In the course of our operations we may have generated and may generate wastes that fall within CERCLA’s definition of hazardous substances. We also may be an owner or operator of facilities at which hazardous substances have been released by previous owners or operators. Under CERCLA, we may be responsible for all or part of the costs of cleaning up facilities at which such substances have been released and for natural resource damages. We also must comply with reporting requirements under the Emergency Planning and Community Right-to-Know Act and the Toxic Substances Control Act.
 - Pursuant to a court-mandated deadline, EPA published a final rule in December 2020 that does not impose financial assurance requirements for managing hazardous substances on the coal products manufacturing sector under Section 108(b) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (“CERCLA 108(b)"). EPA’s final rule determined that the risks associated with these facilities’ operations are addressed by existing federal and state programs and regulations and modern industry practices.
- **Climate Change Legislation and Regulations.** Our facilities are presently subject to the GHG reporting rule, which obligates us to report annual emissions of GHGs. The EPA also finalized a rule in 2010 requiring a new facility that is a major source of GHGs to install equipment or employ BACT procedures. In 2014, the Supreme Court issued an opinion holding that although EPA may not treat GHGs as a pollutant for the purpose of determining whether a source must obtain a PSD or Title V permit, EPA may continue to require GHG limitations in permits for sources classified as major based on their emission of other pollutants. Currently there is little information as to what may constitute BACT for GHG in most industries. Under this rule, certain modifications to our facilities could subject us to the additional permitting and other obligations related to emissions of GHGs under the New Source Review/Prevention of Significant Deterioration (“NSR/PSD”) and Title V programs of the CAA based on whether the facility triggered NSR/PSD because of emissions of another pollutant such as SO₂, NO_x, PM, ozone or lead.
 - The EPA has engaged in rulemakings in recent years to regulate GHG emissions from existing and new coal fired power plants. These various rules were vacated and/or determined to exceed EPA’s authority by the U.S. Court of Appeals for the District of Columbia and the United States Supreme

Court. If EPA replaces these rules with a new rule that applies to our facilities, it may present a potential risk of having an impact on our operations and cost structure.

- The impact current and future GHG-related legislation and regulations have on us will depend on a number of factors, including whether GHG sources in multiple sectors of the economy are regulated, whether an overall GHG emissions cap level is established, the degree to which GHG offsets are allowed, the allocation of emission allowances to specific sources, and actions by the states in implementing these requirements. Any new GHG reduction laws or regulations that apply to us will likely require us to incur increased operating and capital costs and/or increased taxes for GHG emissions. We may not recover the costs related to compliance with regulatory requirements imposed on us from our customers due to limitations in our agreements. The imposition of a carbon tax or similar regulation could materially and adversely affect our revenues. Collectively, these requirements along with restrictions and requirements regarding the mining of all types of coal may reduce the volumes of coal that we manage and may adversely impact our revenues.
- The Securities and Exchange Commission ("SEC") intends to finalize new climate rules that, among other matters, will likely require disclosure of certain climate change-related information. We expect that our operations will be subject to this disclosure rule. However, we cannot predict what such rules may require, the timing of such rules and how significantly they will affect the Company.
- **Occupational Safety and Health Act (OSH Act).** Our facilities are subject to regulation by OSHA or MSHA under the OSH Act and other agencies with standards designed to ensure worker safety. These standards impose minimum requirements for our operations to maintain and operate sites and equipment in a safe manner. As noted above, we have consistently operated within the top quartiles for OSHA's recordable injury rates as measured and reported by the American Coke and Coal Chemicals Institute.
- **Security.** CMT is subject to regulation by the U.S. Coast Guard pursuant to the Maritime Transportation Security Act. We have an internal inspection program designed to monitor and ensure compliance by CMT with these requirements. We believe that we are in material compliance with all applicable laws and regulations regarding the security of the facility.
- **Black Lung Benefits Revenue Act of 1977 and Black Lung Benefits Reform Act of 1977, as amended in 1981.** Under these laws, U.S. coal mine operators must pay federal black lung benefits and medical expenses to claimants who are current and former employees and last worked for the operator after July 1, 1973. The Patient Protection and Affordable Care Act ("PPACA"), which was implemented in 2010, amended previous legislation and provides for the automatic extension of awarded lifetime benefits to surviving spouses and changes the legal criteria used to assess and award claims. SunCoke is not an active coal mine operator and does not perform or oversee coal mining. However, SunCoke has retained certain black lung liabilities associated with legacy coal operations. Our obligation related to black lung benefits at December 31, 2022 was \$58.1 million and was estimated based on various assumptions, including actuarial estimates, discount rates, number of active claims, changes in health care costs and the impact of PPACA.

Available Information

We make available free of charge on our website, www.suncoke.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to such reports as soon as reasonably practicable after such materials are electronically filed with, or furnished to, the SEC. The SEC maintains an Internet site (www.sec.gov) that contains our electronically filed information. Our website also includes our Code of Business Conduct and Ethics, our Governance Guidelines, our Related Persons Transaction Policy and the charters of our Board Committees.

A copy of any of these documents will be provided without charge upon written request to Investor Relations, SunCoke Energy, Inc., 1011 Warrenville Road, Suite 600, Lisle, Illinois 60532. The Company may also use its website as a channel of distribution of material company information. Investors may visit www.suncoke.com to find more information. However, the Company's website is expressly not incorporated by reference herein.

Information about our Executive Officers

Our executive officers and their ages as of February 24, 2023, were as follows:

Michael G. Rippey	65	Chief Executive Officer
Katherine T. Gates	46	President
Mark W. Marinko	61	Senior Vice President and Chief Financial Officer
P. Michael Hardesty	60	Senior Vice President, Commercial Operations, Business Development, Terminals and International Coke
Bonnie M. Edeus	39	Vice President, Controller
Shantanu Agrawal	36	Vice President, Finance and Treasurer
John F. Quanci	61	Vice President, Chief Technology Officer
Patrick G. Nigl	56	Vice President, Coke Operations

Michael G. Rippey. Since January 1, 2023, Mr. Rippey has been Chief Executive Officer of SunCoke Energy, Inc., focusing on strategic objectives and growth initiatives for the company. Prior to that, he was Chief Executive Officer and President since December 1, 2017. He has been a director of SunCoke's Board of Directors since December 2017. At that time, he also was appointed as Chairman, Chief Executive Officer and President of SunCoke Energy Partners GP LLC, the general partner of SunCoke Energy Partners, L.P., our former sponsored master limited partnership. Prior to joining SunCoke, Mr. Rippey served as Senior Advisor to Nippon Steel & Sumitomo Metal Corporation (a leading global steelmaker) since 2015. From 2014 to 2015, he was Chairman of the Board of ArcelorMittal USA (a major domestic steel manufacturer), and from August 2006 through October 2014, he was ArcelorMittal USA's President and Chief Executive Officer. Prior to that, he successfully rose through progressively responsible financial, commercial and administrative leadership roles at ArcelorMittal USA and its predecessor companies: (i) from 2005 to 2006, he was Executive Vice President, Sales and Marketing at Mittal Steel USA; (ii) from 2000 to 2005, he was Executive Vice President and Chief Financial Officer at Ispat Inland Inc.; and (iii) from 1998 to 2000, he served as Vice President, Finance and Chief Financial Officer of Ispat Inland Inc. He began his career with Inland Steel Company (a predecessor to ArcelorMittal USA) in 1984. Mr. Rippey currently serves on the Board of Directors of Olympic Steel, Inc. [NASDAQ: ZEUS] (a leading U.S. metals service center), where he is a member of the Nominating Committee and serves as Chair of the Audit and Compliance Committee. In addition to ArcelorMittal USA, Mr. Rippey's previous board service also includes the National Association of Manufacturers and the American Iron & Steel Institute, where he was a past Chairman of the Board.

Katherine T. Gates. Ms. Gates was elected President of SunCoke Energy, Inc., and was appointed as a director on SunCoke's Board of Directors, effective January 1, 2023. Prior to that, she was Senior Vice President, Chief Legal Officer and Chief Human Resource Officer since November 14, 2019. In both of these roles Ms. Gates led the Company's environmental and sustainability function, including all Environmental, Social, and Governance matters. Ms. Gates joined SunCoke in February 2013 as Senior Health, Environment and Safety Counsel. She was promoted to Vice President and Assistant General Counsel in July 2014, where she focused on litigation, regulatory and commercial matters. Ms. Gates has been practicing law for two decades, and began her legal career in private practice as a Partner at Beveridge & Diamond, P.C. She served on the firm's Management Committee, where she addressed budget, compensation, commercial, and other issues. Ms. Gates also co-chaired the civil litigation section of the firm's Litigation Practice Group. In addition, from October 2015 through June 2019, Ms. Gates served as a director of SunCoke Energy Partners GP LLC, the general partner of our former master limited partnership subsidiary SunCoke Energy Partners, L.P.

We believe that Ms. Gates' legal knowledge and skill, along with experience with SunCoke's operations and Human Resources management, provides the Board of Directors with valuable expertise regarding senior level strategic planning and relevant legal matters, including those related to corporate governance, litigation, health, environment, safety, mergers, acquisitions, compliance and commercial matters.

Mark W. Marinko. Mr. Marinko was appointed as SunCoke Energy, Inc.'s Senior Vice President and Chief Financial Officer in March 2022. Prior to joining SunCoke, Mr. Marinko served as the Senior Vice President and Chief Financial Officer with Great Lakes Dredge and Dock Corporation (the largest dredging company within the United States). Prior to joining Great Lakes Dredge & Dock Corporation, Mr. Marinko was President of the Consumer Services division at TransUnion, LLC, a global provider of information and decision-processing services.

P. Michael Hardesty. Mr. Hardesty was appointed Senior Vice President, Commercial Operations, Business Development, Terminals and International Coke of SunCoke Energy, Inc., effective October 1, 2015. Mr. Hardesty joined SunCoke Energy, Inc. in 2011 as Senior Vice President, Sales and Commercial Operations, and has more than 30 years of

experience in the mining industry. Before joining SunCoke, Mr. Hardesty served as Senior Vice President for International Coal Group, Inc. (“ICG”), where he was responsible for leading the sales and marketing functions and was a key member of the executive management team. Prior to ICG, Mr. Hardesty served as Vice President of Commercial Optimization at Arch Coal, where he developed and executed trade strategies, optimized production output and directed coal purchasing activities. He is a past board member and Secretary-Treasurer of the Putnam County Development Authority in West Virginia. In addition, from October 2015 through June 2019, Mr. Hardesty served as a director of SunCoke Energy Partners GP LLC, the general partner of SunCoke Energy Partners, L.P., our former master limited partnership subsidiary.

Bonnie M. Edeus. Ms. Edeus was appointed as SunCoke Energy, Inc.’s Vice President and Controller in July 2021. Ms. Edeus joined the Company in 2013 and has assumed increasing responsibility within financial leadership roles, most recently serving as Assistant Controller since January 2016. Ms. Edeus is a Certified Public Accountant and holds a Master’s degree in Accounting from Northern Illinois University. Prior to coming to the Company, Ms. Edeus worked in assurance services for BDO USA, LLP, the United States member firm of BDO International, a major global public accounting network, which she joined in 2007.

Shantanu Agrawal. Mr. Agrawal was appointed Vice President, Finance and Treasurer of SunCoke Energy, Inc. in July, 2021 and subsequently also assumed responsibility for the Procurement function in January, 2023. Prior to that he was Director, Financial Performance & Analysis (“FP&A”) and Investor Relations. Mr. Agrawal began his career with SunCoke as an FP&A Analyst in 2014. He has been with SunCoke for more than eight years and has increasingly taken on more responsibilities and oversight over that period. Mr. Agrawal is an accomplished finance executive with a rich mix of finance, operations and strategic planning. In his current roles, Mr. Agrawal has led the Company’s finance function, including budgeting, forecasting, financial analysis, cash management, investor relations and procurement.

John F. Quanci. Dr. John F. Quanci joined SunCoke Energy, Inc. in October, 2010, and was appointed to his current position as Vice President, Chief Technology Officer in May 2019. Prior to joining SunCoke, Dr. Quanci was Director, Corporate Technology of Sunoco, Inc. (a leading transportation fuel provider with interests in logistics). Dr. Quanci has over 30 years of domestic and international experience in process research, development, plant optimization, manufacturing, rebuilding/turnarounds, and taking new technologies from ideation to full production. Over the course of his career, Dr. Quanci has managed several major engineering and technology organizations both internal and external to the petroleum industry, including those of: Mobil Research, Mobil Oil, BP/Mobil, Exxon/Mobil, Rodel and Rohm and Haas Electronic Materials (now DuPont Electronic Materials). Dr. Quanci holds a Ph.D. in Chemical Engineering from Princeton University and is a registered Professional Engineer with over one hundred U.S. and international patents and patent applications.

Patrick G. Nigl. Mr. Nigl was appointed as SunCoke Energy, Inc.’s Vice President, Coke Operations in January 2022. Prior to that, he served as General Manager at the Company’s Indiana Harbor cokemaking operations, located in East Chicago, Indiana, from September 2015. From March 2015 to September 2015, he was Operations Manager at the Indiana Harbor facility. Since joining SunCoke in February 2011, as Maintenance Manager at the Company’s Haverhill, Ohio cokemaking facility, Mr. Nigl has progressed into leadership and oversight roles for the Company’s domestic cokemaking operations. Prior to joining SunCoke, Mr. Nigl was Machining General Manager at DMAX Ltd., an American manufacturer of diesel engines for heavy-duty trucks.

Item 1A. Risk Factors

In addition to the other information included in this Annual Report on Form 10-K and in our other filings with the SEC, the following risk factors should be considered in evaluating our business and future prospects. These risk factors represent what we believe to be the known material risk factors with respect to us and our business. Our business, operating results, cash flows and financial condition are subject to these risks and uncertainties, any of which could cause actual results to vary materially from recent results or from anticipated future results.

These risks are not the only risks we face. Additional risks and uncertainties not currently known to us, or that we currently deem to be immaterial also may materially and adversely affect our business, financial condition, or results of operations.

Risks Inherent in Our Business and Industry

Our cokemaking and logistics businesses are subject to operating risks, some of which are beyond our control. Equipment failures or deterioration of assets, may lead to production curtailments, shutdowns, impairments, or additional expenditures, which could have a material adverse effect on our results of operations and financial condition.

Factors beyond our control could disrupt our cokemaking and logistics operations, adversely affect our ability to service the needs of our customers and increase our operating costs, all of which could have a material and adverse effect on

our results of operations. Adverse developments at our cokemaking facilities could significantly disrupt our ability to produce and supply coke, steam, and/or electricity to our customers. Adverse developments at our logistics operations could significantly disrupt our ability to provide handling, mixing, storage, terminalling, transloading and/or transportation services, of coal and other dry and liquid bulk commodities, to our customers. Our operations depend upon critical pieces of equipment that occasionally may be out of service for scheduled upgrades or maintenance or as a result of unanticipated failures. Assets and equipment critical to these operations also may deteriorate or become depleted materially sooner than we currently estimate, resulting in additional maintenance spending or additional replacement capital expenditures.

Our cokemaking and logistics operations are subject to significant hazards and risks, any of which could result in production and transportation difficulties and disruptions, equipment failures and risk of catastrophic loss, permit non-compliance, pollution, personal injury or wrongful death claims and other damage to our properties and the property of others. Such hazards and risks include, but are not limited to:

- geological, hydrologic, or other conditions that may cause damage to infrastructure or personnel;
- fire, explosion, or other major incident causing injury to personnel and/or equipment that causes a cessation, or significant curtailment, of all or part of our cokemaking or logistics operations at a site for a period of time;
- processing and plant equipment failures or malfunction, operating hazards and unexpected maintenance problems affecting our cokemaking or logistics operations, or our customers;
- adverse weather conditions and natural disasters, such as severe winds, heavy rains or snow, flooding, extreme temperatures and other natural events, including those resulting from climate change, affecting our cokemaking or logistics operations, transportation, or our customers; and
- possible legal challenges to the renewal of key permits, which may lead to their renewal on terms that restrict our cokemaking or logistics operations, or impose additional costs on us.

If any of these conditions or events occur, our cokemaking or logistics operations may be disrupted, operating costs could increase significantly and we could incur substantial losses. Such disruptions in our operations could materially and adversely affect our financial condition or results of operations. In particular, to the extent a disruption leads to our failure to maintain the temperature inside our coke oven batteries, we may not be able to maintain the integrity of the ovens or to continue operation of such coke ovens, which could adversely affect our ability to meet our customers' requirements for coke and, in some cases, electricity and/or steam.

If our assets do not generate the amount of future cash flows that we expect, or we are not able to execute on capital maintenance or procure replacement assets in an economically feasible manner, our future results of operations may be materially and adversely affected.

The financial performance of our cokemaking and logistics businesses is substantially dependent upon a limited number of customers, and the loss of any of these customers, or any failure by them to perform under their contracts with us, could materially and adversely affect our financial condition, permit compliance, results of operations and cash flows.

Substantially all of our coke sales currently are made pursuant to long-term contracts with Cliffs Steel and U.S. Steel. We expect these customers to continue to account for a significant portion of our revenues for the foreseeable future.

We are subject to the credit risk of our major customers and other parties. If we fail to adequately assess the creditworthiness of existing or future customers or unanticipated deterioration of their creditworthiness, any resulting increase in nonpayment or nonperformance by them could have a material adverse effect on our cash flows, financial position or results of operations. During periods of weak demand for steel or coal, our customers may experience significant reductions in their operations, or substantial declines in the prices of the steel, or coal products, they sell. These and other factors such as labor relations or bankruptcy filings may lead certain of our customers to seek renegotiation or cancellation of their existing contractual commitments to us, or reduce their utilization of our services.

The loss of any of these customers (or financial difficulties at any of these customers, which result in nonpayment or nonperformance) could have a significant adverse effect on our business. If one or more of these customers were to significantly reduce its purchases of coke or logistics services from us without a make-whole payment, or default on their agreements with us, or terminate or fail to renew their agreements with us, or if we were unable to sell such coke or logistics

services to these customers on terms as favorable to us as the terms under our current agreements, our cash flows, financial position, permit compliance, or results of operations could be materially and adversely affected.

We face competition, both in our cokemaking operations and in our logistics business, which has the potential to reduce demand for our products and services, and that could have an adverse effect on our financial condition and results of operations.

We face competition, both in our cokemaking operations and in our logistics business:

- **Cokemaking operations:** Historically, coke has been used as a main input in the production of steel in blast furnaces. However, some blast furnace operators have relied upon natural gas, pulverized coal, and/or other coke substitutes. Many steelmakers also are exploring alternatives to blast furnace technology that require less or no use of coke or alternatives that reduce the amount of GHG emissions from the process. For example, electric arc furnace technology is a commercially proven process widely used in the United States. As these alternative processes for production of steel become more widespread, the demand for blast furnace coke, including the coke we produce, may be significantly reduced. We also face competition from alternative cokemaking technologies, including both by-product and heat recovery technologies. As these technologies improve and as new technologies are developed, competition in the cokemaking industry may intensify. As alternative processes for production of steel become more widespread, the demand for blast furnace coke, including the coke we produce, may be significantly reduced.
- **Logistics business:** Decreased throughput and utilization of our logistics assets could result indirectly due to competition in the electrical power generation business from abundant and relatively inexpensive supplies of natural gas displacing thermal coal as a fuel for electrical power generation by utility companies. In addition, competition in the steel industry from processes such as electric arc furnaces, or blast furnace injection of pulverized coal or natural gas, may reduce the demand for metallurgical coals processed through our logistics facilities. In the future, additional coal handling facilities and terminals with rail and/or barge access may be constructed in the Eastern United States. Such additional facilities could compete directly with us in specific markets now served by our logistics business. Certain coal mining companies and independent terminal operators in some areas may compete directly with our logistics facilities. In some markets, trucks may competitively deliver mined coal to certain shorter-haul destinations, resulting in reduced utilization of existing terminal capacity.

Such competition could reduce demand for our products and services, thus having an adverse effect on our financial condition and results of operations.

We are subject to extensive laws and regulations, which may increase our cost of doing business and have an adverse effect on our cash flows, financial position or results of operations.

Our operations are subject to strict regulation by federal, state and local authorities with respect to: discharges of substances into the surrounding environment including the air, water and ground; emissions of GHGs; compliance with the NAAQS; management and disposal of hazardous substances and wastes; cleanup of contaminated sites; protection of groundwater quality and availability; protection of plants and wildlife; reclamation and restoration of properties after completion of mining or drilling; sales of electric power; installation of safety equipment in our facilities; and protection of employee health and safety. Complying with these and other regulatory requirements, including the terms of our permits, can be costly and time-consuming, and may hinder operations. In addition, these requirements are complex, change frequently and have become more stringent over time. Regulatory requirements, including those related to GHGs, and various CAA programs, may change in the future in a manner that could result in substantially increased capital, operating and compliance costs, which could have a material adverse effect on our business, financial condition and results of operations.

Failure to comply with applicable laws, regulations or permits may result in the assessment of administrative, civil and criminal penalties, the imposition of cleanup and site restoration costs and liens, the issuance of injunctions to limit or cease operations, the suspension or revocation of permits and other enforcement measures that could cause delays in permitting or development of projects or materially limit, or increase the cost of, our operations. We may not have been, or may not be, at all times, in complete compliance with all such requirements, and we may incur material costs or liabilities in connection with such requirements, or in connection with remediation at sites we own, or third-party sites where it has been alleged that we have liability, in excess of the amounts we have accrued. For a description of certain environmental laws and matters applicable to us and associated risks, see “Item 1. Business-Legal and Regulatory Requirements.”

Our operations may impact the environment or cause exposure to hazardous substances, which could result in material liabilities to us.

Our operations result in emissions of various substances to the air, including GHGs, use hazardous materials, and generate solid and hazardous waste. We have in the past and could in the future be subject to claims under federal, state and local laws and regulations arising from these activities, including for the investigation and clean-up of soil, surface water, or groundwater. We previously have been and could again in the future be subject to litigation for alleged bodily injuries or property damage arising from claimed exposure to emissions or hazardous substances allegedly used, released, or disposed of by us, as well as litigation related to climate change by governments, private entities, or individuals. Although we make every effort to avoid litigation, these matters are not totally within our control. We will contest these matters vigorously and have made insurance claims where appropriate, but because of the uncertain nature of litigation and coverage decisions, we cannot predict the outcome of these matters. Environmental impacts resulting from our operations, including exposures to emissions, hazardous substances, or wastes associated with our operations, could result in costs and liabilities that could adversely impact our financial condition and results of operations.

We may be unable to obtain, maintain or renew permits or leases necessary for our operations, which could materially reduce our production, cash flows or profitability.

Our cokemaking and logistics operations require us to obtain a number of permits that impose strict regulations on various environmental and operational matters. These, as well as our facilities and operations (including our generation of electricity), require permits issued by various federal, state and local agencies and regulatory bodies. The permitting rules, and the interpretations of these rules, are complex, change frequently, and are often subject to discretionary interpretations by our regulators, all of which may make compliance more costly, difficult or impractical, and may possibly preclude the continuance of ongoing operations or the development of future cokemaking and/or logistics facilities. Non-governmental organizations, environmental groups and individuals have certain rights to engage in the permitting process, and may comment upon, or object to, the requested permits. Such persons also have the right to bring citizen's lawsuits to challenge the issuance of permits, or the validity of environmental impact statements related thereto. If any permits or leases are not issued or renewed in a timely fashion or at all, or if permits issued or renewed are conditioned in a manner that restricts our ability to efficiently and economically conduct our operations, our cash flows or profitability could be materially and adversely affected.

Our businesses are subject to inherent risks, some for which we maintain third party insurance and some for which we self-insure. We may incur losses and be subject to liability claims that could have a material adverse effect on our financial condition, results of operations or cash flows.

We maintain insurance policies that provide limited coverage for some, but not all, potential risks and liabilities associated with our business. We may not obtain insurance if we believe the cost of available insurance is excessive relative to the risks presented. As a result of market conditions, premiums and deductibles for certain insurance policies can increase substantially, and in some instances, certain insurance may become unavailable or available only for reduced amounts of coverage. As a result, we may not be able to renew our existing insurance policies or procure other desirable insurance on commercially reasonable terms, if at all. In addition, certain risks, such as certain environmental and pollution risks, and certain cybersecurity risks, generally are not fully insurable. We must compensate employees for work-related injuries. If we do not make adequate provision for our workers' compensation liabilities, or we are pursued for applicable sanctions, costs, and liabilities, our operations and our profitability could be adversely affected. Even where insurance coverage applies, insurers may contest their obligations to make payments. Our financial condition, results of operations and cash flows could be materially and adversely affected by losses and liabilities from un-insured or under-insured events, as well as by delays in the payment of insurance proceeds, or the failure by insurers to make payments.

We may not be able to successfully implement our growth strategies or plans, and we may experience significant risks associated with future acquisitions, investments and/or divestitures. If we are unable to execute our strategic plans, whether as a result of unfavorable market conditions in the industries in which our customers operate, or otherwise, our future results of operations could be materially and adversely affected.

A portion of our strategy to grow our business is dependent upon our ability to acquire and operate new assets that result in an increase in our earnings. We may not derive the financial returns we expect on our investment in such additional assets or such operations may not be profitable. We cannot predict the effect that any failed expansion may have on our core businesses. The success of our future acquisitions and/or investments will depend substantially on the accuracy of our analysis concerning such businesses and our ability to complete such acquisitions or investments on favorable terms, as well as to finance such acquisitions or investments and to integrate the acquired operations successfully with existing operations. Risks associated with acquisitions include the diversion of management's attention from other business concerns, the

potential loss of key employees and customers of the acquired business, the possible assumption of unknown liabilities, potential disputes with the sellers, and the inherent risks in entering markets or lines of business in which we have limited or no prior experience. Antitrust and other laws may prevent us from completing acquisitions. If we are not able to execute our strategic plans effectively, or successfully integrate new operations, whether as a result of unfavorable market conditions in the industries in which our customers operate, or otherwise, our business reputation could suffer and future results of operations could be materially and adversely affected.

In the event we form joint ventures or other similar arrangements, we must pay close attention to the organizational formalities and time-consuming procedures for sharing information and making decisions. We may share ownership and management with other parties who may not have the same goals, strategies, priorities, or resources as we do. The benefits from a successful investment in an existing entity or joint venture will be shared among the co-owners, so we will not receive the exclusive benefits from a successful investment. Additionally, if a co-owner changes, our relationship may be materially and adversely affected.

We regularly review strategic opportunities to further our business objectives, and may eliminate assets that do not meet our return-on-investment criteria. The anticipated benefits of divestitures and other strategic transactions may not be realized, or may be realized more slowly than we expected. Such transactions also could result in a number of financial consequences having a material adverse effect on our results of operations and our financial position, including reduced cash balances; higher fixed expenses; the incurrence of debt and contingent liabilities (including indemnification obligations); restructuring charges; loss of customers, suppliers, distributors, licensors or employees; legal, accounting and advisory fees; and impairment charges.

Impairment in the carrying value of long-lived assets could adversely affect our business, financial condition and results of operations.

We have a significant amount of long-lived assets on our Consolidated Balance Sheets. Under generally accepted accounting principles, long-lived assets must be reviewed for impairment whenever adverse events or changes in circumstances indicate a possible impairment. We are required to perform impairment tests on our assets whenever events or changes in circumstances lead to a reduction of the estimated useful life or estimated future cash flows that would indicate that the carrying amount may not be recoverable or whenever management's plans change with respect to those assets. If business conditions or other factors cause profitability and cash flows to decline, we may be required to record non-cash impairment charges.

Events and conditions that could result in impairment in the value of our long-lived assets include: the impact of a downturn in the global economy, competition, advances in technology, adverse changes in the regulatory environment, and other factors leading to a reduction in expected long-term sales or profitability, or a significant decline in the trading price of our common stock or market capitalization, lower future cash flows, slower industry growth rates and other changes in the industries in which we or our customers operate.

Our operating results have been and may continue to be affected by fluctuations in our costs of production, and, if we cannot pass increases in our costs of production to our customers, our financial condition, results of operations and cash flows may be negatively affected.

Our operations require a reliable supply of equipment, replacement parts and metallurgical coal. If the cost to produce coke and provide logistics services, including cost of supplies, equipment, metallurgical coal or labor, experience significant price inflation and we cannot pass such increases in our costs of production to our customers, our profit margins may be reduced and our financial condition, results of operations and cash flows may be adversely affected.

We may incur costs and liabilities resulting from claims for damages to property or injury to persons arising from our operations, and such costs and liabilities could have a material and adverse effect on our financial condition or results of operations.

Our success depends, in part, on the quality, efficacy and safety of our products and services. If our operations do not meet applicable safety standards, or our products or services are found to be unsafe, our relationships with customers could suffer and we could lose business or become subject to liability or claims. In addition, our cokemaking and logistics operations have inherent safety risks that may give rise to events resulting in death, injury, or property loss to employees, customers, or unaffiliated third parties. Depending upon the nature and severity of such events, we could be exposed to significant financial loss, reputational damage, potential civil or criminal government or other regulatory enforcement actions, or private litigation, the settlement or outcome of which could have a material and adverse effect on our financial condition or results of operations.

A new or more stringent greenhouse gas emission standard designed to address climate change and physical effects attributed to climate change may adversely affect our operations and impose significant costs on our business and our customers and suppliers.

There is increasing regulatory attention concerning the issue of climate change and the impact of GHGs, particularly from fossil fuels, which are integral to our cokemaking and logistics businesses. Our business and operations, as well as the business and operations of our key suppliers and customers, may become subject to legislation or regulation intended to limit GHG emissions, the use of fossil fuels or the effects of climate change, or may be impacted by the increasing drive towards a lower carbon economy in an effort to limit the impacts of climate change. It is not possible to foresee the details of such legislation or regulations or changes in the economy or their resulting effects on our business. Because our coking process is dependent on coal as a raw material and the coking process generates carbon dioxide, we are limited in our ability to reduce our GHG emissions and could be affected by future regulation of GHGs, although we are evaluating the feasibility of reducing our GHG emissions profile. Any new regulations, legislation or taxes that affect other industries that use coal or other fossil fuels processed through our terminals could reduce throughput and utilization of our logistics assets. Future legislation or regulation regarding climate change and GHG emissions could impose significant costs on our business and our customers and suppliers due to increased energy, capital equipment, emissions controls, environmental monitoring and reporting and other costs in order to comply with these laws and regulations. Failure to comply with these regulations could result in fines to our company and could affect our business, financial condition and results of operations. Additionally, our suppliers may face cost increases to comply with any new legislation or regulations leading to higher costs to us for goods or services.

Climate change may cause changes in weather patterns and increase the frequency or severity of weather events and flooding. An increase in severe weather events and flooding may adversely impact us, our operations, and our ability to procure raw materials and manufacture and transport our products and could result in an adverse effect on our business, financial condition and results of operations. Extreme weather conditions may increase our costs, temporarily impact our production capabilities or cause damage to our facilities. For example, our terminals are located near bodies of water and may be impacted by flooding or hurricanes, disrupting our or our customers' ability to move products. Our coke plants are also generally located near bodies of water and may be impacted by the effects of climate change. Additionally, extreme cold could prevent coal delivery and unloading at our coke plants, impeding operation, or create a more hazardous outdoor working environment for our employees. Severe weather may also adversely impact our suppliers and our customers and their ability to purchase and transport our products.

Investor interest in climate change, fossil fuels, and sustainability could adversely affect our business and our stock price.

Climate change and sustainability have increasingly become important topics to investors and the community at large. As such, there have been recent efforts aimed at the investment community to encourage the divestment of shares of companies associated with energy, coal and/or fossil fuels, as well as to pressure lenders and other financial services companies to limit or curtail business relations with coal and fossil fuel companies. If these efforts are successful, our stock price and our ability to access capital markets may be negatively impacted. Members of the investment community are also increasing their focus on sustainability practices, including management of GHGs and climate change. As a result, we may face increasing pressure regarding our sustainability disclosures and practices.

Risks Related to Our Cokemaking Business

If a substantial portion of our agreements to supply coke, electricity, and/or steam are modified or terminated, our cash flows, financial position, permit compliance or results of operations may be adversely affected if we are not able to replace such agreements, or if we are not able to enter into new agreements at the same level of profitability.

We make substantially all of our coke, electricity and steam sales under long-term agreements. If a substantial portion of these agreements are modified or terminated or if force majeure is exercised, our results of operations may be adversely affected if we are not able to replace such agreements, or if we are not able to enter into new agreements at the same level of profitability. The profitability of our long-term coke, energy and steam sales agreements depends on a variety of factors that vary from agreement to agreement and fluctuate during the agreement term. We may not be able to obtain long-term agreements at favorable prices, compared either to market conditions or to our cost structure. Price changes provided in long-term supply agreements may not reflect actual increases in production costs. As a result, such cost increases may reduce profit margins on our long-term coke and energy sales agreements. In addition, contractual provisions for adjustment or renegotiation of prices and other provisions may increase our exposure to short-term price volatility.

From time to time, we discuss the extension of existing agreements and enter into new long-term agreements for the supply of coke, steam, and energy to our customers, but these negotiations may not be successful and these customers may

not continue to purchase coke, steam, or electricity from us under long-term agreements. In addition, declarations of bankruptcy by customers can result in changes in our contracts with less favorable terms. If any one or more of these customers were to become financially distressed and unable to pay us, significantly reduce their purchases of coke, steam, or electricity from us, or if we were unable to sell coke or electricity to them on terms as favorable to us as the terms under our current agreements, our cash flows, financial position, permit compliance or results of operations may be materially and adversely affected.

Further, because of certain technological design constraints, we do not have the ability to shut down our cokemaking operations if we do not have adequate customer demand. If a customer refuses to take or pay for our coke, we must continue to operate our coke ovens even though we may not be able to sell our coke immediately and may incur significant additional costs for natural gas to maintain the temperature inside our coke oven batteries and fees under our rail contracts to account for reductions in inbound coal or outbound coke shipments at our plants, which may have a material and adverse effect on our cash flows, financial position or results of operations.

Excess capacity in the global steel industry, and/or increased exports of coke from producing countries, may weaken our customers' demand for our coke and could materially and adversely affect our future revenues and profitability.

In some countries steelmaking capacity exceeds demand for steel products. Rather than reducing employment by matching production capacity to consumption, steel manufacturers in these countries (often with local government assistance or subsidies in various forms) may export steel at prices that are significantly below their home market prices and that may not reflect their costs of production or capital. Our steelmaking customers may decrease the prices they charge for steel, or take other action, as the supply of steel increases. The profitability and financial position of our steelmaking customers may be adversely affected, causing such customers to reduce their demand for our coke and making it more likely that they may seek to renegotiate their contracts with us or fail to pay for the coke they are required to take under our contracts. In addition, future increases in exports of coke from China and/or other coke-producing countries also may reduce our customers' demand for coke capacity. Such reduced demand for our coke could adversely affect the certainty of our long-term relationships with our customers, depress coke prices, and limit our ability to enter into new, or renew existing, commercial arrangements with our customers, as well as our ability to sell excess capacity in the spot market, and could materially and adversely affect our future revenues and profitability.

Certain provisions in our long-term coke agreements may result in economic penalties to us, or may result in termination of our coke sales agreements for failure to meet minimum volume requirements, coal-to-coke yields or other required specifications, and certain provisions in these agreements and our energy sales agreements may permit our customers to suspend performance.

Our agreements for the supply of coke, energy and/or steam, contain provisions requiring us to supply minimum volumes of our products to our customers. To the extent we do not meet these minimum volumes, we are generally required under the terms of our long-term agreements to procure replacement supply to our customers at the applicable contract price or potentially be subject to cover damages for any shortfall. If future shortfalls occur, we will work with our customer to identify possible other supply sources while we implement operating improvements at the facility, but we may not be successful in identifying alternative supplies and may be subject to paying the contract price for any shortfall or to cover damages, either of which could adversely affect our future revenues and profitability. Our long-term agreements also contain provisions requiring us to deliver coke that meets certain quality thresholds. Failure to meet these specifications could result in economic penalties, including price adjustments, the rejection of deliveries or termination of our agreements. To the extent that we do not meet the coal-to-coke yield standard in an agreement, we are responsible for the cost of the excess coal used in the cokemaking process.

Our coke and energy sales agreements contain force majeure provisions allowing temporary suspension of performance by our customers for the duration of specified events beyond the control of our customers. Declaration of force majeure, coupled with a lengthy suspension of performance under one or more coke or energy sales agreements, may seriously and adversely affect our cash flows, financial position and results of operations.

Failure to maintain effective quality control systems at our cokemaking facilities could have a material adverse effect on our results of operations.

The quality of our coke is critical to the success of our business. For instance, our coke sales agreements contain provisions requiring us to deliver coke that meets certain quality thresholds. If our coke fails to meet such specifications, we could be subject to significant contractual damages or contract terminations, and our sales could be negatively affected. The quality of our coke depends significantly on the effectiveness of our quality control systems, which, in turn, depends on a number of factors, including the design of our quality control systems, our quality-training program, our laboratories and our

ability to ensure that our employees adhere to our quality control policies and guidelines. Any significant failure or deterioration of our quality control systems could have a material adverse effect on our results of operations.

Disruptions to our supply of coal and coal mixing services may reduce the amount of coke we produce and deliver, and if we are not able to cover the shortfall in coal supply or obtain replacement mixing services from other providers, our results of operations and profitability could be adversely affected.

Substantially all of the metallurgical coal used to produce coke at our cokemaking facilities is purchased from third-parties under one-year contracts. We cannot assure that there will continue to be an ample supply of metallurgical coal available or that these facilities will be supplied without any significant disruption in coke production, as economic, environmental, and other conditions outside of our control may reduce our ability to source sufficient amounts of coal for our forecasted operational needs. If we are not able to make up the shortfalls resulting from such supply failures through purchases of coal from other sources, the failure of our coal suppliers to meet their supply commitments could materially and adversely impact our results of operations and, ultimately, impact the structural integrity of our coke oven batteries.

At our Granite City and Haverhill cokemaking facilities, we rely on third-parties to mix coals that we have purchased into coal mixes that we use to produce coke. We have entered into long-term agreements with coal mixing service providers that are coterminous with our coke sales agreements. However, there are limited alternative providers of coal mixing services and any disruptions from our current service providers could materially and adversely impact our results of operations. In addition, if our rail transportation agreements are terminated, we may have to pay higher rates to access rail lines or make alternative transportation arrangements.

Limitations on the availability and reliability of transportation, and increases in transportation costs, particularly rail systems, could materially and adversely affect our ability to obtain a supply of coal and deliver coke to our customers.

Our ability to obtain coal depends primarily on third-party rail systems and to a lesser extent river barges. If we are unable to obtain rail or other transportation services, or are unable to do so on a cost-effective basis, our results of operations could be adversely affected. Alternative transportation and delivery systems are generally inadequate and not suitable to handle the quantity of our shipments or to ensure timely delivery. The loss of access to rail capacity could create temporary disruption until the access is restored, significantly impairing our ability to receive coal and resulting in materially decreased revenues. Our ability to open new cokemaking facilities may also be affected by the availability and cost of rail or other transportation systems available for servicing these facilities.

Our coke production obligations at our Jewell cokemaking facility and one half of our Haverhill cokemaking facility require us to deliver coke to certain customers via railcar. We have entered into long-term rail transportation agreements to meet these obligations. Disruption of these transportation services because of weather-related problems, including those related to climate change, mechanical difficulties, train derailments, infrastructure damage, strikes, lock-outs, lack of fuel or maintenance items, fuel costs, transportation delays, accidents, terrorism, domestic catastrophe or other events could temporarily, or over the long-term, impair our ability to produce coke, and therefore, could materially and adversely affect our business and results of operations.

If we are unable to effectively protect our intellectual property, third parties may use our technology, which would impair our ability to compete in our markets.

Our future success will depend in part on our ability to obtain and maintain meaningful patent protection for certain of our technologies and products throughout the world. The degree of future protection for our proprietary rights is uncertain. We rely on patents to protect our intellectual property portfolio and to enhance our competitive position. However, our presently pending or future patent applications may not issue as patents, and any patent previously issued to us or our subsidiaries may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents that have been issued to us or our subsidiaries or that may be issued to us in the future may not be sufficiently broad to prevent third parties from using cokemaking technologies and heat recovery processes similar to ours. In addition, the laws of various foreign countries in which we plan to compete may not protect our intellectual property to the same extent as do the laws of the United States. If we fail to obtain adequate patent protection for our proprietary technology, our ability to be commercially competitive may be materially impaired.

We are subject to certain political or country risks due to the Vitória, Brazil cokemaking facility that could adversely affect our financial results.

The Vitória cokemaking facility is owned by ArcelorMittal Brazil. We earn income from the Vitória, Brazil operations through licensing and operating fees earned at the Brazilian cokemaking facility payable to us under long-term agreements with ArcelorMittal Brazil. These revenues depend on continuing operations and, in some cases, certain minimum production levels being achieved at the Vitória cokemaking facility. In the past, the Brazilian economy has been

characterized by frequent and occasionally extensive intervention by the Brazilian government and unstable economic cycles. The Brazilian government has changed in the past, and may change monetary, taxation, credit, tariff and other policies to influence Brazil's economy in the future. If the operations at the Vitória cokemaking facility are interrupted or if certain minimum production levels are not achieved, we will not be able to earn the same licensing and operating fees as we are currently earning, which could have an adverse effect on our financial position, results of operations and cash flows.

Additionally, the Vitória, Brazil operations require us to comply with a number of U.S. and international laws and regulations, including those involving anti-bribery, anti-corruption and anti-fraud. In particular, our international operations are subject to U.S. and foreign anti-corruption laws and regulations, including the regulations imposed by the Foreign Corrupt Practices Act ("FCPA"), which generally prohibits issuers and their strategic or local partners, agents or representatives, which we refer to as our intermediaries (even if those intermediaries are not themselves subject to the FCPA or other similar laws), from making improper payments to foreign officials for the purpose of obtaining or keeping business or obtaining an improper business benefit.

We take precautions to comply with these laws. However, these precautions may not protect us against liability, particularly as a result of actions by our intermediaries through whom we have exposure under these anti-bribery, anti-corruption and anti-fraud laws even though we may have limited or no ability to control such intermediaries. Any violations of such laws could be punishable by criminal fines, imprisonment, civil penalties, disgorgement of profits, injunctions and exclusion from government contracts, as well as other remedial measures. Investigations of alleged violations can be very expensive, disruptive and damaging to our reputation and could negatively impact our stock price. Failure by us or our intermediaries to comply with the foregoing or other anti-bribery, anti-corruption and anti-fraud laws could adversely impact our results of operations, financial position, and cash flows, damage our reputation and negatively impact our stock price.

Risks Related to Our Logistics Business

The growth and success of our logistics business depends upon our ability to find and contract for adequate throughput volumes, and an extended decline in demand for coal could affect the customers for our logistics business adversely. As a consequence, the operating results and cash flows of our logistics business could be materially and adversely affected.

The financial results of our logistics business segment are significantly affected by the demand for both thermal coal and metallurgical coal. An extended decline in our customers' demand for either thermal or metallurgical coals, including as a result of legislation or regulations promoting renewable energy or limiting carbon emissions from the energy sector, could result in a reduced need for the coal mixing, terminalling and transloading services we offer, thus reducing throughput and utilization of our logistics assets. Demand for such coals may fluctuate due to factors beyond our control:

- **Thermal coal demand:** may be impacted by changes in the energy consumption pattern of industrial consumers, electricity generators and residential users, as well as weather conditions and extreme temperatures. The amount of thermal coal consumed for electric power generation is affected primarily by the overall demand for electricity, the availability, quality and price of competing fuels for power generation, including natural gas, and governmental regulation. For example, state and federal mandates and market demand for increased use of electricity from renewable energy sources, or mandates for the retrofitting of existing coal-fired generators with pollution control systems, could adversely impact the demand for thermal coal. Finally, unusually warm winter weather may reduce the commercial and residential needs for heat and electricity which, in turn, may reduce the demand for thermal coal; and
- **Metallurgical coal demand:** may be impacted adversely by economic downturns resulting in decreased demand for steel and an overall decline in steel production. A decline in blast furnace production of steel may reduce the demand for furnace coke, an intermediate product made from metallurgical coal. Decreased demand for metallurgical coal also may result from increased steel industry utilization of processes that do not use, or reduce the need for, furnace coke, such as electric arc furnaces, or blast furnace injection of pulverized coal or natural gas.

Additionally, fluctuations in the market price of coal can greatly affect production rates and investments by third-parties in the development of new and existing coal reserves. Mining activity may decrease as spot coal prices decrease. We have no control over the level of mining activity by coal producers, which may be affected by prevailing and projected coal prices, demand for hydrocarbons, the level of coal reserves, geological considerations, governmental regulation and the availability and cost of capital. A material decrease in coal mining production in the areas of operation for our logistics business, whether as a result of depressed commodity prices or otherwise, could result in a decline in the volume of coal processed through our logistics facilities, which would reduce our revenues and operating income.

Decreased demand for thermal or metallurgical coals, and extended or substantial price declines for coal could adversely affect our operating results for future periods and our ability to generate cash flows necessary to improve productivity and expand operations. The cash flows associated with our logistics business may decline unless we are able to secure new volumes of coal or other dry bulk products, by attracting additional customers to these operations. Future growth and profitability of our logistics business segment will depend, in part, upon whether we can contract for additional coal and other bulk commodity volumes at a rate greater than that of any decline in volumes from existing customers. Accordingly, decreased demand for coal, or other bulk commodities, or a decrease in the market price of coal, or other bulk commodities, could have a material adverse effect on the results of operations or financial condition of our logistics business.

The geographic location of CMT could expose us to potential significant liabilities, including operational hazards and unforeseen business interruptions, that could substantially and adversely affect our future financial performance.

CMT is located in the Gulf Coast region, and its operations are subject to operational hazards and unforeseen interruptions, including interruptions from hurricanes, floods, or other potential effects of climate change, which have historically impacted the region with some regularity. If any of these events were to occur, we could incur substantial losses because of personal injury or loss of life, severe damage to and destruction of property and equipment, and pollution or other environmental damage resulting in curtailment or suspension of our related operations.

Risks Related to Indebtedness, Liquidity and Financial Position

We may need additional capital in the future to meet our financial obligations and to pursue our business objectives. Additional capital may not be available on favorable terms, or at all, which could compromise our ability to meet our financial obligations and grow our business.

We may need to raise additional capital to fund operations in the future or to finance acquisitions or other business objectives. Such additional capital may not be available on favorable terms or at all. Lack of sufficient capital resources could significantly limit our ability to meet our financial obligations or to take advantage of business and strategic opportunities. Any additional capital raised through the sale of equity or convertible debt securities would dilute stock ownership, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing we secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, we may be required to delay or reduce the scope of our business strategy.

We face material debt maturities which may adversely affect our consolidated financial position.

Over the next five years, we have \$43.8 million of total consolidated debt maturing. See Note 11 to the consolidated financial statements. We may not be able to refinance this debt, or may be forced to do so on terms substantially less favorable than our currently outstanding debt. We may be forced to delay or not make capital expenditures, which may adversely affect our competitive position and financial results.

We may be adversely affected by the effects of inflation.

Inflation has the potential to adversely affect our liquidity, business, financial condition and results of operations by increasing our overall cost structure. The existence of inflation in the economy has resulted in, and may continue to result in, higher interest rates and capital costs, increased costs of labor, weakening exchange rates and other similar effects. Although we may take measures to mitigate the impact of this inflation, if these measures are not effective, our business, financial condition, results of operations and liquidity could be materially adversely affected. Even if such measures are effective, there could be a difference between the timing of when these beneficial actions impact our results of operations and when the cost of inflation is incurred.

Our level of indebtedness could adversely affect our financial condition and prevent us from fulfilling our obligations under our credit facilities and other debt documents. Further, our credit facilities contain operating and financial covenants that may restrict our business and financing activities.

Subject to the limits contained in our credit agreements and our other debt instruments, we may be able to incur additional debt from time to time to finance working capital, capital expenditures, investments or acquisitions, or for other purposes. If we do so, the risks related to our level of debt could intensify. Specifically, a higher level of debt could have important consequences, including:

- making it more difficult for us to satisfy our obligations with respect to the notes and our other debt;
- limiting our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions, distributions or other general corporate requirements;

- requiring a substantial portion of our cash flows to be dedicated to debt service payments instead of other purposes, thereby reducing the amount of cash flows available for the payment of dividends, working capital, capital expenditures, acquisitions and other general corporate purposes;
- increasing our vulnerability to general adverse economic and industry conditions;
- exposing us to the risk of increased interest rates as certain of our borrowings, including borrowings under the credit facilities, are at variable rates of interest;
- limiting our flexibility in planning for and reacting to changes in the industry in which we compete;
- placing us at a competitive disadvantage to other, less leveraged competitors; and
- increasing our cost of borrowing.

Our ability to meet our debt obligations and reduce our level of indebtedness depends upon our future performance and general economic, financial, business, and other factors, many of which are beyond our control. Factors affecting our ability to raise cash through an offering of our common stock or a refinancing of our debt include financial market conditions, the value of our assets, and our performance at the time we need capital.

In addition, the credit agreement governing our credit facilities contains restrictive covenants that limit our ability to engage in activities (such as incurring additional debt) that may be in our long-term best interest. Our failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of all our debt. In the event of an acceleration of all our debt, we may not have sufficient cash on hand to repay the indebtedness in full or refinance such debt on favorable terms, or at all. Such event could materially adversely affect our business, financial condition and results of operations.

Risks Related to Our Legacy Coal Mining Business

Our former coal mining operations were subject to governmental regulations pertaining to employee health and safety and mandated benefits for retired coal miners. Following the divestiture of our coal mining operations, compliance with such regulations has continued to impose significant costs on our business.

Our former coal mining operations were subject to strict regulation by federal, state and local authorities with respect to environmental matters such as reclamation, and to matters such as employee health and safety and mandated benefits for retired coal miners. Even after divestiture of our coal mining business, compliance with these reclamation and benefits requirements has continued to impose significant costs on us. As a former coal mine operator, federal law requires us to secure payment of federal black lung benefits to claimants who were employees, and to contribute to a trust fund for payment of benefits and medical expenses to claimants who last worked in the coal industry before January 1, 1970. At December 31, 2022, our liabilities for coal workers' black lung benefits totaled \$58.1 million. Our business could be materially and adversely harmed if these liabilities, including the number and award size of claims, were increased. See "Item 1. Business-Legal and Regulatory Requirements-Regulation of Operations."

General Risks

The COVID-19 pandemic has in the past and may continue to adversely impact or disrupt our, and our customers' and suppliers', business, operations, cash flows, financial condition and results of operations. Any future outbreak of COVID-19 variants or any other highly infectious or contagious disease could have a similar impact.

The COVID-19 pandemic had, and may continue to have, adverse impacts on our business. While our facilities continued to operate during the COVID-19 pandemic due to our inclusion in the Critical Manufacturing Sector as defined by the U.S. Department of Homeland Security, COVID-19 negatively impacted our business and results of operations primarily due to the impacts of the COVID-19 pandemic on our customers and suppliers. For example, certain of our steelmaking and logistics customers were adversely impacted by the idling of manufacturing plants as a result of the COVID-19 pandemic. In an effort to assist certain of our steelmaking customers impacted by the COVID-19 pandemic, we implemented volume relief measures by providing near-term coke supply relief for such customers in exchange for extending of certain contracts. The extent to which COVID-19 or other future pandemics impact our business and results of operations, and our customers' and suppliers' business and results of operations, are out of our control and will depend on future developments that are highly uncertain and cannot be predicted, including rising inflation and supply chain issues, the emergence of new variants, the severity and duration of the pandemic and actions taken to contain it or mitigate its effects, as well as the effectiveness of vaccine rollout plans, the public's perception of the safety of the vaccines and their willingness to take the vaccines, public safety measures and the impact of the pandemic on the global economy. Therefore, the impact of COVID-19, including any

resurgences of the virus, new variants, or other similar future health crises may heighten other risks discussed herein, which could adversely impact or disrupt our business, financial condition, results of operations, cash flows and market value.

Sustained uncertainty in financial markets, or unfavorable economic conditions in the industries in which our customers operate, may lead to a reduction in the demand for our products and services, and adversely impact our cash flows, financial position or results of operations.

Sustained volatility and disruption in worldwide capital and credit markets in the U.S. and globally could restrict our ability to access the capital market at a time when we would like, or need, to raise capital for our business including for potential acquisitions, or other growth opportunities.

Deteriorating or unfavorable economic conditions in the industries in which our customers operate, such as steelmaking and electric power generation, may lead to reduced demand for steel products, coal, and other bulk commodities which, in turn, could adversely affect the demand for our products and services and negatively impact the revenues, margins and profitability of our business.

Labor disputes with the unionized portion of our workforce could affect us adversely. Union represented labor creates an increased risk of work stoppages and higher labor costs.

We rely, at one or more of our facilities, on unionized labor, and there is always the possibility that we may be unable to reach agreement on terms and conditions of employment or renewal of a collective bargaining agreement. When collective bargaining agreements expire or terminate, we may not be able to negotiate new agreements on the same or more favorable terms as the current agreements, or at all, and without production interruptions, including labor stoppages. If we are unable to negotiate the renewal of a collective bargaining agreement before its expiration date, our operations and our profitability could be adversely affected. A prolonged labor dispute, which may include a work stoppage, could adversely affect our ability to satisfy our customers' orders and, as a result, adversely affect our operations, or the stability of production and reduce our future revenues, or profitability. It is also possible that, in the future, additional employee groups may choose to be represented by a labor union.

Our ability to operate our company effectively could be impaired if we fail to attract and retain key personnel.

We have implemented recruitment, training and retention efforts to optimally staff our operations. Our ability to operate our business and implement our strategies depends in part on the efforts of our executive officers and other key employees. In addition, our future success will depend on, among other factors, our ability to attract and retain other qualified personnel. The loss of the services of any of our executive officers or other key employees or the inability to attract or retain other qualified personnel in the future could have a material adverse effect on our business or business prospects. With respect to our represented employees, we may be adversely impacted by the loss of employees who retire or obtain other employment during a layoff or a work stoppage.

We currently are, and likely will be, subject to litigation, the disposition of which could have a material adverse effect on our cash flows, financial position or results of operations.

The nature of our operations exposes us to possible litigation claims in the future, including disputes relating to our operations and commercial and contractual arrangements. Although we make every effort to avoid litigation, these matters are not totally within our control. We will contest these matters vigorously and have made insurance claims where appropriate, but because of the uncertain nature of litigation and coverage decisions, we cannot predict the outcome of these matters. Litigation is very costly, and the costs associated with prosecuting and defending litigation matters could have a material adverse effect on our financial condition and profitability. In addition, our profitability or cash flow in a particular period could be affected by an adverse ruling in any litigation currently pending in the courts or by litigation that may be filed against us in the future. We are also subject to significant environmental and other government regulation, which sometimes results in various administrative proceedings. For additional information, see "Item 3. Legal Proceedings."

Security breaches and other information systems failures could disrupt our operations, compromise the integrity of our data, expose us to liability, cause increased expenses and cause our reputation to suffer, any or all of which could have a material and adverse effect on our business or financial position.

Our business is dependent on financial, accounting and other data processing systems and other communications and information systems, including our enterprise resource planning tools. We process a large number of transactions on a daily basis and rely upon the proper functioning of computer systems. If a key system were to fail or experience unscheduled downtime for any reason, our operations and financial results could be affected adversely. Our systems could be damaged or interrupted by a security breach, terrorist attack, fire, flood, power loss, telecommunications failure or similar event. Our

disaster recovery plans may not entirely prevent delays or other complications that could arise from an information systems failure. Our business interruption insurance may not compensate us adequately for losses that may occur.

In the ordinary course of our business, we collect and store sensitive data in our data centers, on our networks, and in our cloud vendors. In addition, we rely on third party service providers, for support of our information technology systems, including the maintenance and integrity of proprietary business information and other confidential company information and data relating to customers, suppliers and employees. The secure processing, maintenance and transmission of this information is critical to our operations and business strategy. We have instituted data security measures for confidential company information and data stored on electronic and computing devices, whether owned or leased by us or a third party vendor. However, despite such measures, there are risks associated with customer, vendor, and other third-party access and our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to: employee error or malfeasance, failure of third parties to meet contractual, regulatory and other obligations to us, or other disruptions.

Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, and regulatory penalties, disrupt our operations, and damage our reputation, which could materially and adversely affect our business and financial position.

We are exposed to, and may be adversely affected by, interruptions to our computer and information technology systems and sophisticated cyber-attacks.

We rely on our information technology systems and networks in connection with many of our business activities. Some of these networks and systems are managed by third-party service providers and are not under our direct control. Our operations routinely involve receiving, storing, processing and transmitting sensitive information pertaining to our business, customers, dealers, suppliers, employees and other sensitive matters. Cyber-attacks could materially disrupt operational systems; result in loss of trade secrets or other proprietary or competitively sensitive information; compromise personally identifiable information regarding customers or employees; and jeopardize the security of our facilities. A cyber-attack could be caused by malicious outsiders using sophisticated methods to circumvent firewalls, encryption and other security defenses. Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until they are launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. Information technology security threats, including security breaches, computer malware and other cyber-attacks are increasing in both frequency and sophistication and could create financial liability, subject us to legal or regulatory sanctions or damage our reputation with customers, dealers, suppliers and other stakeholders. We continuously seek to maintain a robust program of information security and controls, but a cyber-attack could have a material adverse effect on our competitive position, reputation, results of operations, financial condition and cash flows. As cyber-attacks continue to evolve, we may be required to expend additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities.

We are or may become subject to privacy and data protection laws, rules and directives relating to the processing of personal data in the states and countries where we operate.

The growth of cyber-attacks has resulted in an evolving legal landscape which imposes costs that are likely to increase over time. For example, new laws and regulations governing data privacy and the unauthorized disclosure of confidential information, including the European Union General Data Protection Regulation and recent California legislation (which, among other things, provides for a private right of action), pose increasingly complex compliance challenges and could potentially elevate our costs over time. Any failure by us to comply with such laws and regulations could result in penalties and liabilities. It is also possible under certain legislation that if we acquire a company that has violated or is not in compliance with applicable data protection laws, we may incur significant liabilities and penalties as a result.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We own the following real property as of December 31, 2022:

- Approximately 1,700 acres in Vansant (Buchanan County), Virginia on which the Jewell cokemaking facility is located, along with the offices, warehouse and support buildings for our Jewell coke affiliates as well as other general property holdings and unoccupied land.
- Approximately 400 acres in Franklin Furnace (Scioto County), Ohio, at and around the area where the Haverhill cokemaking facility (both the first and second phases) is located.

- Approximately 45 acres in Granite City (Madison County), Illinois, adjacent to the U.S. Steel Granite City Works facility, on which the Granite City cokemaking facility is located. Upon the earlier of ceasing production at the facility or the end of 2044, U.S. Steel has the right to repurchase the property, including the facility, at the fair market value of the land. Alternatively, U.S. Steel may require us to demolish and remove the facility and remediate the site to original condition upon exercise of its option to repurchase the land.
- Approximately 250 acres in Middletown (Butler County), Ohio near Cliff's Middletown Works facility, on which the Middletown cokemaking facility is located.
- Approximately 180 acres in Ceredo (Wayne County), West Virginia on which KRT has two terminals for its mixing and/or handling services along the Ohio and Big Sandy Rivers.
- Approximately 175 acres in Convent (St. James Parish), Louisiana, on which CMT is located.

We lease the following real property as of December 31, 2022:

- Approximately 90 acres of land located in East Chicago (Lake County), Indiana, on which the Indiana Harbor cokemaking facility is located and the coal handling and/or mixing facilities (Lake Terminal) that service the Indiana Harbor cokemaking facility. The leased property is inside ArcelorMittal's Indiana Harbor Works facility and is part of an enterprise zone. As lessee of the property, we are responsible for restoring the leased property to a safe and orderly condition.
- Approximately 310 acres of land located in Buchanan County, Virginia, at and around the area where our DRT coal handling terminal is located.
- Approximately 30 acres in Belle (Kanawha County), West Virginia, on which KRT has a terminal for its mixing and/or handling services along the Kanawha River.
- Our corporate headquarters is located in leased office space in Lisle, Illinois under a 9 year lease that commenced in 2021.

While the Company completed the disposal of its coal mining business in April 2016, we continue to have rights to small parcels of land, mineral rights and coal mining rights for approximately 5 thousand acres of land in Buchanan and Russell Counties, Virginia. These agreements convey mining rights to us in exchange for payment of certain immaterial royalties and/or fixed fees.

Item 3. Legal Proceedings

The information presented in Note 12 to our consolidated financial statements within this Annual Report on Form 10-K is incorporated herein by reference.

Many legal and administrative proceedings are pending or may be brought against us arising out of our current and past operations, including matters related to commercial and tax disputes, product liability, employment claims, personal injury claims, premises-liability claims, allegations of exposures to toxic substances and general environmental claims. Although the ultimate outcome of these proceedings cannot be ascertained at this time, it is reasonably possible that some of them could be resolved unfavorably to us. Our management believes that any liabilities that may arise from such matters would not likely be material in relation to our business or our consolidated financial position, results of operations or cash flows at December 31, 2022.

Item 4. Mine Safety Disclosures

While the Company divested substantially all of its remaining coal mining assets in April 2016, the Company remains responsible for reclamation of certain legacy coal mining locations that are subject to Mine Safety and Health Administration ("MSHA") regulatory purview and the Company continues to own certain logistics assets that are regulated by MSHA. The information concerning mine safety violations and other regulatory matters that we are required to report in accordance with Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.014) is included in Exhibit 95.1 to this Annual Report on Form 10-K.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholders Matters and Issuer Purchases of Equity Securities

Market Information

Shares of our common stock trade under the stock trading symbol “SXC” on the New York Stock Exchange.

Performance Graph

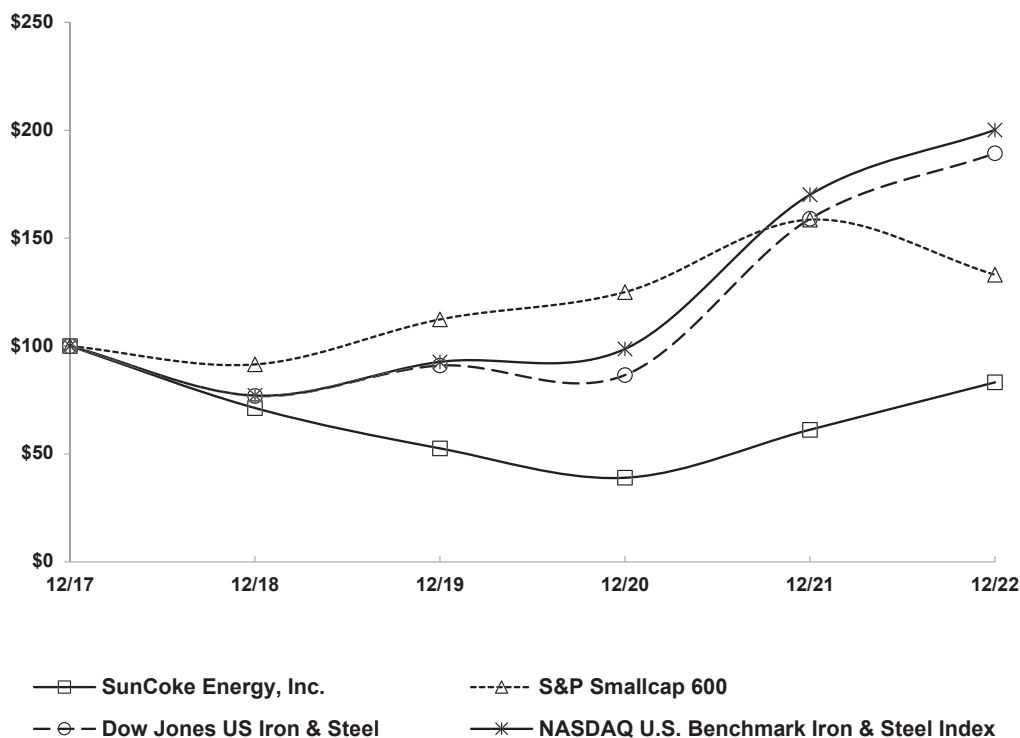
The following performance graph and related information shall not be deemed "soliciting material" or be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act or Exchange Act, except to the extent we specifically incorporate it by reference into such filing.

The graph below matches the Company's cumulative 5-Year total shareholder return on common stock with the cumulative total returns of the S&P Small Cap 600 Index, the NASDAQ U.S. Benchmark Iron & Steel Index, and the Dow Jones U.S. Iron & Steel Index. The graph tracks the performance of a \$100 investment in our common stock and in each index (with the reinvestment of all dividends) from December 31, 2017 to December 31, 2022.

In selecting the indices for comparison, we considered market capitalization and industry or line-of-business. The S&P Small Cap 600 Index is a broad equity market index comprised of companies of between \$450 million and \$2.1 billion. The Company is a part of this index. The NASDAQ U.S. Benchmark Iron and Steel Index is comprised of U.S.-based steel and metals manufacturing and coal and iron ore mining companies. While we do not manufacture steel, we do produce coke, an essential ingredient in the blast furnace production of steel. Accordingly, we believe the NASDAQ U.S. Benchmark Iron & Steel Index is appropriate for comparison purposes. The Company has elected to replace the Dow Jones U.S. Iron and Steel Index with the NASDAQ U.S. Benchmark Iron and Steel Index in this analysis and going forward, as the market capitalization profile is more comparable to that of the Company. In this transition year, the stock performance graph includes both the Dow Jones U.S. Iron and Steel Index and the NASDAQ U.S. Benchmark Iron and Steel Index.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among SunCoke Energy, Inc., the S&P Smallcap 600 Index, the Dow Jones US Iron & Steel Index, and NASDAQ U.S. Benchmark Iron & Steel Index



Holders

As of February 17, 2023, we had 8,340 holders of record of our common stock.

Dividends

Our Board of Directors declared the following dividends during 2022 and through February 24, 2023:

<u>Date Declared</u>	<u>Record Date</u>	<u>Dividend Per Share</u>	<u>Payment Date</u>
February 1, 2022	February 17, 2022	\$0.06	March 1, 2022
May 2, 2022	May 18, 2022	\$0.06	June 1, 2022
August 2, 2022	August 18, 2022	\$0.08	September 1, 2022
October 31, 2022	November 18, 2022	\$0.08	December 1, 2022
February 2, 2023	February 16, 2023	\$0.08	March 1, 2023

Our payment of dividends in the future, if any, will be determined by our Board of Directors and will depend on business conditions, our financial condition, earnings, liquidity and capital requirements, covenants in our debt agreements and other factors. Any dividend program may be canceled, suspended, terminated or modified at any time at the discretion of the Board of Directors.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

On October 28, 2019, the Company's Board of Directors authorized a program to repurchase outstanding shares of the Company's common stock, \$0.01 par value per share, from time to time in open market transactions at prevailing market prices, in privately negotiated transactions, or by other means in accordance with federal securities laws, for a total aggregate cost to the Company not to exceed \$100.0 million. There have been no share repurchases since the first quarter of 2020 as the Company temporarily suspended additional repurchases, leaving \$96.3 million available under the authorized repurchase program as of December 31, 2022.

Item 6. **[Reserved]**

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

This Annual Report on Form 10-K contains certain forward-looking statements, as defined in the Private Securities Litigation Reform Act of 1995. This discussion contains forward-looking statements about our business, operations and industry that involve risks and uncertainties, such as statements regarding our plans, objectives, expected future developments, expectations and intentions, and they involve known and unknown risks that are difficult to predict. As a result, our future results and financial condition may differ materially from those we currently anticipate as a result of the factors we describe under "Cautionary Statement Concerning Forward-Looking Statements" and "Risk Factors."

This Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is based on financial data derived from the financial statements prepared in accordance with United States generally accepted accounting principles ("GAAP") and certain other financial data that is prepared using a non-GAAP measure. For a reconciliation of the non-GAAP measure to its most comparable GAAP component, see "Non-GAAP Financial Measures" in this Item and Note 19 to our consolidated financial statements.

Our MD&A is provided in addition to the accompanying consolidated financial statements and notes to assist readers in understanding our results of operations, financial condition and cash flows. Our results of operations include reference to our business operations and market conditions, which are further described in Part I of this document.

2022 Overview

Our consolidated results of operations in 2022 were as follows:

	Year Ended December 31, 2022
	(Dollars in millions)
Net income	\$ 104.9
Net cash provided by operating activities	\$ 208.9
Adjusted EBITDA ⁽¹⁾	\$ 297.7

- (1) See Note 19 in our consolidated financial statements for both the definition of Adjusted EBITDA and the reconciliation from GAAP to the non-GAAP measurement.

The Company delivered strong financial results for the year ended 2022. Favorable pricing on export coke sales in our Domestic Coke segment and higher price realization and volumes within our Logistics segment drove record Adjusted EBITDA performance in 2022. We also increased our participation in the foundry coke market, while continuing to deliver on our long-term, take-or-pay coke contracts.

We returned meaningful capital to our shareholders through the declaration and payment of a dividend during each quarter of 2022, increasing from \$0.06 per share during the first half of the year to \$0.08 per share during the second half of the year, representing a quarterly increase of 33 percent. Additionally, we reduced total debt by approximately \$83 million in 2022.

Recent Developments

- **Granulated Pig Iron Project.** On June 28, 2022, the Company entered into a non-binding letter of intent with U.S. Steel. The letter of intent sets out the principal terms and conditions upon which SunCoke would acquire two blast furnaces from U.S. Steel's Granite City Works facility and construct a granulated pig iron facility with an annual capacity of 2 million tons to be sold to U.S. Steel for a ten year initial term.

Items Impacting Comparability

- **2021 Debt Refinancing.** During the second quarter of 2021, the Company refinanced its debt obligations. The Company issued \$500.0 million of 4.875 percent senior notes, due in 2029 ("2029 Senior Notes"), amended and extended the maturity of its revolving credit facility ("Revolving Facility") to June 2026 and reduced the Revolving Facility capacity by \$50.0 million to \$350.0 million. The Company used the proceeds of the 2029 Senior Notes along with borrowings under the Company's Revolving Facility to purchase and redeem all of the 7.500 percent senior notes, due in 2025 ("2025 Senior Notes"). As a result of the debt refinancing and revolver amendment, the year ended December 31, 2021 included a loss on extinguishment of debt on the Consolidated Statement of Income of \$31.9 million, which consisted of the premium paid of \$22.0 million and the write-off of unamortized debt issuance costs of \$6.9 million and the remaining original issue discount of \$3.0 million.

Consolidated Results of Operations

The following section includes year-over-year analysis of consolidated results of operations for the year ended December 31, 2022 as compared to the year ended December 31, 2021. See "Analysis of Segment Results" later in this section for further details of these results. Refer to Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2021 Annual Report on Form 10-K for the year-over-year analysis of consolidated results of operations for the year ended December 31, 2021 as compared to the year ended December 31, 2020.

	Years Ended December 31,		Increase (Decrease)
	2022	2021	
(Dollars in millions)			
Revenues			
Sales and other operating revenue	\$1,972.5	\$1,456.0	\$ 516.5
Costs and operating expenses			
Cost of products sold and operating expenses	1,604.9	1,118.8	486.1
Selling, general and administrative expenses	71.4	61.8	9.6
Depreciation and amortization expense	142.5	133.9	8.6
Total costs and operating expenses	1,818.8	1,314.5	504.3
Operating income	153.7	141.5	12.2
Interest expense, net	32.0	42.5	(10.5)
Loss on extinguishment of debt	—	31.9	(31.9)
Income before income tax expense	121.7	67.1	54.6
Income tax expense	16.8	18.3	(1.5)
Net income	104.9	48.8	56.1
Less: Net income attributable to noncontrolling interests	4.2	5.4	(1.2)
Net income attributable to SunCoke Energy, Inc.	\$ 100.7	\$ 43.4	\$ 57.3

Sales and Other Operating Revenue and Costs of Products Sold and Operating Expenses. Sales and other operating revenue and costs of products sold and operating expenses increased in 2022 as compared to 2021, primarily driven by the pass-through of higher coal prices in our Domestic Coke segment, which also resulted in lower margins. Additionally, revenues further benefited from favorable pricing on export coke sales in our Domestic Coke segment, which partially offset the impact of higher coal prices on margins.

Selling, General and Administrative Expenses. The increase in selling, general and administrative expense primarily reflects higher employee related expenses, higher cost of professional services, and transaction costs incurred as part of the granulated pig iron project. These higher costs were partially offset by valuation adjustments as a result of changes in discount rates on certain legacy liabilities, which decreased legacy costs by \$3.3 million as compared to the prior year.

Depreciation and Amortization Expense. Depreciation and amortization expense increased as a result of depreciable assets placed into service since the prior year period.

Interest Expense, net. Interest expense, net, benefited in 2022 from a lower interest rate on the outstanding senior notes, which decreased to 4.875 percent from 7.500 percent as a result of the debt refinancing that occurred during the second quarter of 2021, as well as lower average debt balances during the current year period.

Income Tax Expense. Income tax expense during 2022 reflects the net impact of Foreign Tax Credit regulations signed in 2022 further described in Note 4 to our consolidated financial statements, which had a net result of an income tax benefit of \$6.5 million during the current year period. Additionally, the current year period reflects the recognition of research and development credits and lower apportioned state income tax rates, which resulted in an income tax benefits of \$4.0 million and \$6.4 million, respectively, including the related revaluation of certain deferred tax liabilities. See Note 4 to our consolidated financial statements for further detail.

Noncontrolling Interest. Net income attributable to noncontrolling interest represents a 14.8 percent third-party interest in our Indiana Harbor cokemaking facility and fluctuates with the financial performance of that facility.

Results of Reportable Business Segments

We report our business results through three segments:

- Domestic Coke consists of our Jewell facility, located in Vansant, Virginia, our Indiana Harbor facility, located in East Chicago, Indiana, our Haverhill facility, located in Franklin Furnace, Ohio, our Granite City facility located in Granite City, Illinois, and our Middletown facility located in Middletown, Ohio.
- Brazil Coke consists of operations in Vitória, Brazil, where we operate the ArcelorMittal Brazil cokemaking facility.
- Logistics consists of Convent Marine Terminal ("CMT"), located in Convent, Louisiana, Kanawha River Terminal ("KRT"), located in Ceredo and Belle, West Virginia, SunCoke Lake Terminal ("Lake Terminal"), located in East Chicago, Indiana, and Dismal River Terminal ("DRT"), located in Vansant, Virginia. Lake Terminal and DRT are located adjacent to our Indiana Harbor and Jewell cokemaking facilities, respectively.

The operations of each of our segments are described in Part I of this document.

Corporate expenses that can be identified with a segment have been included in determining segment results. The remainder is included in Corporate and Other.

Management believes Adjusted EBITDA is an important measure of operating performance and uses it as the primary basis for the chief operating decision maker to evaluate the performance of each of our reportable segments. Adjusted EBITDA should not be considered a substitute for the reported results prepared in accordance with GAAP. See Note 19 to our consolidated financial statements.

Segment Operating Data

The following table sets forth financial and operating data by segment for the years ended December 31, 2022 and 2021:

	Years Ended December 31,		Increase (Decrease)
	2022	2021	
(Dollars in millions, except per ton amounts)			
Sales and other operating revenue:			
Domestic Coke	\$ 1,856.9	\$ 1,354.5	\$ 502.4
Brazil Coke	38.0	36.6	1.4
Logistics	77.6	64.9	12.7
Logistics intersegment sales	28.9	27.1	1.8
Elimination of intersegment sales	(28.9)	(27.1)	(1.8)
Total sales and other operating revenue	<u>\$ 1,972.5</u>	<u>\$ 1,456.0</u>	<u>\$ 516.5</u>
Adjusted EBITDA⁽¹⁾:			
Domestic Coke	\$ 263.4	\$ 243.4	\$ 20.0
Brazil Coke	14.5	17.2	(2.7)
Logistics	49.7	43.5	6.2
Corporate and Other, net	(29.9)	(28.7)	(1.2)
Total Adjusted EBITDA	<u>\$ 297.7</u>	<u>\$ 275.4</u>	<u>\$ 22.3</u>
Coke Operating Data:			
Domestic Coke capacity utilization ⁽²⁾	100 %	101 %	(1)%
Domestic Coke production volumes (thousands of tons)	4,023	4,162	(139)
Domestic Coke sales volumes (thousands of tons)	4,031	4,183	(152)
Domestic Coke Adjusted EBITDA per ton ⁽³⁾	\$ 65.34	\$ 58.19	\$ 7.15
Brazilian Coke production—operated facility (thousands of tons)	1,585	1,685	(100)
Logistics Operating Data:			
Tons handled (thousands of tons)	22,291	19,933	2,358

- (1) See Note 19 in our consolidated financial statements for both the definition of Adjusted EBITDA and the reconciliation from GAAP to the non-GAAP measurement.
- (2) The production of foundry coke tons does not replace blast furnace coke tons on a ton for ton basis, as foundry coke requires longer coking time. The Domestic Coke capacity utilization is calculated assuming a single ton of foundry coke replaces approximately two tons of blast furnace coke.
- (3) Reflects Domestic Coke Adjusted EBITDA divided by Domestic Coke sales volumes.

Analysis of Segment Results

Domestic Coke

The following table explains year-over-year changes in our Domestic Coke segment's sales and other operating revenues and Adjusted EBITDA results:

	Sales and other operating revenue		Adjusted EBITDA	
	2022 vs 2021		2022 vs 2021	
(Dollars in millions)				
Beginning	\$	1,354.5	\$	243.4
Volume ⁽¹⁾		(46.4)		(13.9)
Price ⁽²⁾		543.2		47.4
Operating and maintenance costs ⁽³⁾		N/A		(13.1)
Energy and other ⁽⁴⁾		5.6		(0.4)
Ending	\$	1,856.9	\$	263.4

- (1) Volumes decreased during 2022 primarily due to changes in the mix of production.
- (2) Revenues increased primarily as a result of the pass-through of higher coal prices on our long-term, take-or-pay agreements, which also had a favorable impact on Adjusted EBITDA due to higher coal-to-coke yield gains on higher coal prices. Favorable pricing on export coke sales also increased revenues and was the primary driver of the increase to Adjusted EBITDA during 2022.
- (3) Higher operating and maintenance costs includes the impact of planned maintenance outages and higher cost of fuel.
- (4) Favorable energy pricing at our Haverhill II facility increased both revenue and Adjusted EBITDA. This increase to Adjusted EBITDA was more than offset by higher allocation of corporate costs.

Logistics

The following table explains year-over-year changes in our Logistics segment's sales and other operating revenues and Adjusted EBITDA results:

	Sales and other operating revenue, inclusive of intersegment sales		Adjusted EBITDA	
	2022 vs 2021		2022 vs 2021	
(Dollars in millions)				
Beginning	\$	92.0	\$	43.5
Transloading volumes ⁽¹⁾		5.9		3.6
Price/margin impact of mix in transloading services ⁽²⁾		8.9		8.9
Other ⁽³⁾		(0.3)		(6.3)
Ending	\$	106.5	\$	49.7

- (1) Volumes improved as a result of increased demand driven by the strong domestic metallurgical and thermal coal markets.
- (2) Revenues and Adjusted EBITDA increased as a result of favorable pricing at CMT driven by the strong export coal market.
- (3) Other decreases in Adjusted EBITDA reflect higher operating and maintenance costs.

Brazil Coke

Sales and other operating revenue increased \$1.4 million, or 4 percent, to \$38.0 million in 2022 compared to \$36.6 million in 2021. Adjusted EBITDA decreased \$2.7 million, or 16 percent, to \$14.5 million in 2022 compared to \$17.2 million in 2021. Sales and other operating revenue and Adjusted EBITDA reflect the impact of lower volumes, including the absence of production bonuses for meeting certain volume targets received in the prior year. The impact of lower volumes on sales and other operating revenue was more than offset by the pass-through of higher reimbursable operating and maintenance costs as well as favorable translation adjustments.

Corporate and Other

Corporate and Other expenses, increased \$1.2 million, or 4 percent, to \$29.9 million in 2022 as compared to \$28.7 million in 2021. The increase was driven by higher employee related expenses and higher cost of professional services. These increased costs were mostly offset by valuation adjustments as a result of changes in discount rates on certain legacy liabilities, which decreased legacy costs by \$3.3 million.

Non-GAAP Financial Measures

In addition to the GAAP results provided in the Annual Report on Form 10-K, we have provided a non-GAAP financial measure, Adjusted EBITDA. Our management, as well as certain investors, uses this non-GAAP measure to analyze our current and expected future financial performance. This measure is not in accordance with, or a substitute for, GAAP and may be different from, or inconsistent with, non-GAAP financial measures used by other companies. See Note 19 in our consolidated financial statements for both the definition of Adjusted EBITDA and the reconciliation from GAAP to the non-GAAP measurement for 2022, 2021 and 2020.

Liquidity and Capital Resources

Our primary liquidity needs are to fund working capital, fund investments, service our debt, maintain cash reserves and replace partially or fully depreciated assets and other capital expenditures. Our sources of liquidity include cash generated from operations, borrowings under our Revolving Facility and, from time to time, debt and equity offerings. We believe our current resources are sufficient to meet our working capital requirements for our current business for at least the next 12 months and thereafter for the foreseeable future. As of December 31, 2022, we had \$90.0 million of cash and cash equivalents and \$315.0 million of borrowing availability under our Revolving Facility.

We may, from time to time, seek to retire or purchase additional amounts of our outstanding equity and/or debt securities through cash purchases and/or exchanges for other securities, in open market purchases, privately negotiated transactions or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors. The amounts involved may be material. Refer to further liquidity discussion below as well as "Part II - Item 5 - Market for Registrant's Common Equity, Related Stockholders Matters and Issuer Purchases of Equity Securities."

During the first quarter of 2020, the U.S. Department of Labor's Division of Coal Mine Workers' Compensation ("DCMWC") requested SunCoke provide additional collateral of approximately \$32 million to secure certain of its black lung obligations. SunCoke exercised its right to appeal the DCMWC's determination and provided additional information supporting the Company's position in May 2020 and February 2021. If the Company's appeal is unsuccessful, the Company may be required to provide additional collateral to receive its self-insurance reauthorization from the DCMWC, which could potentially reduce the Company's liquidity. Additionally, on January 19, 2023, the Department of Labor issued a new proposed rule that would require self-insured companies to post collateral in the amount of 120 percent of the company's total expected lifetime black lung obligations as determined by the DCMWC. While this new proposed rule is not effective, if finalized, it could potentially reduce the Company's liquidity. We will submit comments on this proposed rule and continue to monitor any impact to the Company. See further discussion in Note 12 to our consolidated financial statements.

Cash Flow Summary

The following table sets forth a summary of the net cash provided by (used in) operating, investing and financing activities for the years ended December 31, 2022 and 2021:

	Years Ended December 31,	
	2022	2021
	(Dollars in millions)	
Net cash provided by operating activities	\$ 208.9	\$ 233.1
Net cash used in investing activities	(70.2)	(99.3)
Net cash used in financing activities	(112.5)	(118.4)
Net increase in cash and cash equivalents	<u>\$ 26.2</u>	<u>\$ 15.4</u>

Cash Provided by Operating Activities

Net cash provided by operating activities decreased by \$24.2 million to \$208.9 million in 2022 as compared to 2021. The decrease primarily reflects unfavorable year-over-year changes in primary working capital, which is comprised of accounts receivable, inventories and accounts payable, driven by higher coal prices. This decrease was partially offset by

higher operating results in our Domestic Coke segment, primarily driven by favorable pricing on export coke sales, and in our Logistics segment, driven by favorable pricing and higher transloading volumes.

Cash Used in Investing Activities

Net cash used in investing activities decreased \$29.1 million to \$70.2 million in 2022 as compared to 2021 primarily driven by the timing of payments related to capital expenditures as well as the completion of certain foundry cokemaking expansion projects in 2021. Refer to Capital Requirements and Expenditures below for further detail.

Cash Used in Financing Activities

Net cash used in financing activities decreased \$5.9 million to \$112.5 million in 2022 as compared to \$118.4 million in 2021. This decrease was primarily driven by the absence of costs associated with the debt refinancing that took place during the second quarter of 2021, which consisted of a \$22.0 million premium and \$12.0 million of debt issuance costs. These decreases were partly offset by higher current period net repayments on the Company's debt of \$19.7 million, excluding the impact of funding of the debt refinancing in the prior period, and \$4.4 million of cash distributions made to noncontrolling interests. Additionally, dividends paid in 2022 increased \$3.5 million as compared to the dividends paid in the prior year as a result of an increase in the dividend per share amount.

Dividends

In addition to the \$23.6 million in dividends paid to our shareholders during 2022, on February 2, 2023, SunCoke's Board of Directors declared a cash dividend of \$0.08 per share of the Company's common stock. This dividend will be paid on March 1, 2023, to stockholders of record of February 16, 2023. See further discussion in "Item 5. Market for Registrant's Common Equity, Related Stockholders Matters and Issuer Purchases of Equity Securities."

Covenants

As of December 31, 2022, we were in compliance with all applicable debt covenants. We do not anticipate a violation of these covenants nor do we anticipate that any of these covenants will restrict our operations or our ability to obtain additional financing. See Note 11 to the consolidated financial statements for details on debt covenants.

Credit Rating

In May 2022, S&P Global Ratings reaffirmed our corporate credit rating of BB- (stable). In June 2022, Moody's Investors Service reaffirmed our corporate credit rating of B1 and upgraded the outlook from stable to positive.

Contractual Obligations

As of December 31, 2022, significant contractual obligations related to our metallurgical coal procurement contracts, which are generally based on annual coke production requirements at fixed coal prices, were \$1,092.8 million and extend through 2023. As of December 31, 2022 significant contractual obligations related to debt were \$543.8 million of principal borrowings and \$166.6 million of related interest, which will be repaid through 2029. Projected interest costs on variable rate instruments were calculated using market rates at December 31, 2022. See Note 11 to our consolidated financial statements. We also have contractual obligations for leases, including land, office space, equipment, railcars and locomotives. See Note 13 to our consolidated financial statements.

Capital Requirements and Expenditures

Our operations are capital intensive, requiring significant investment to upgrade or enhance existing operations and to meet environmental and operational regulations. The level of future capital expenditures will depend on various factors, including market conditions and customer requirements, and may differ from current or anticipated levels. Material changes in capital expenditure levels may impact financial results, including but not limited to the amount of depreciation, interest expense and repair and maintenance expense.

Our capital requirements have consisted, and are expected to consist, primarily of:

- Ongoing capital expenditures required to maintain equipment reliability, the integrity and safety of our coke ovens and steam generators and to comply with environmental regulations. Ongoing capital expenditures are made to replace partially or fully depreciated assets in order to maintain the existing operating capacity of the assets and/or to extend their useful lives and also include new equipment that improves the efficiency, reliability or effectiveness of existing assets. Ongoing capital expenditures do not include normal repairs and maintenance expenses, which are expensed as incurred;

- Expansion capital expenditures to acquire and/or construct complementary assets to grow our business and to expand existing facilities as well as capital expenditures made to enable the renewal of a coke sales agreement and/or logistics service agreement and on which we expect to earn a reasonable return; and
- Environmental remediation project expenditures required to implement design changes to ensure that our existing facilities operate in accordance with existing environmental permits.

The following table summarizes our capital expenditures:

	Years Ended December 31,	
	2022	2021
	(Dollars in millions)	
Ongoing capital	\$ 72.1	\$ 87.6
Expansion capital ⁽¹⁾	3.4	11.0
Total capital expenditures ⁽²⁾	<u>\$ 75.5</u>	<u>\$ 98.6</u>

(1) Includes capital spending in connection with the foundry cokemaking growth project.

(2) Reflects actual cash payments during the periods presented for our capital requirements.

Critical Accounting Policies and Estimates

A summary of our significant accounting policies is included in Note 2 to the consolidated financial statements. Our management believes that the application of these policies on a consistent basis enables us to provide the users of our financial statements with useful and reliable information about our operating results and financial condition. The preparation of our consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosures of contingent assets and liabilities. The Company's black lung benefit obligations is an item that is subject to such estimates and assumptions. Although our management bases its estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, actual results may differ to some extent from the estimates on which our consolidated financial statements have been prepared at any point in time. Despite these inherent limitations, our management believes the "Management's Discussion and Analysis of Financial Condition and Results of Operations" and consolidated financial statements and footnotes provide a meaningful and fair perspective of our financial condition.

Black Lung Benefit Liabilities

The Company has obligations related to coal workers' pneumoconiosis, or black lung, to provide benefits to certain of its former coal miners and their dependents further described in Note 12 to our consolidated financial statements.

Our independent actuarial consultants calculate the present value of the estimated black lung liability annually based on actuarial models utilizing our population of former coal miners, historical payout patterns of both the Company and the industry, actuarial mortality rates, medical costs, death benefits, dependents, discount rates and the current federally mandated payout rates. The estimated liability may be impacted by future changes in the statutory mechanisms, modifications by court decisions and changes in filing patterns by claimants and their advisors, the impact of which cannot be estimated.

The following table summarizes discount rates utilized, active claims and the total black lung liabilities:

	December 31,	
	2022	2021
Discount rate ⁽¹⁾	4.9 %	2.4 %
Active claims	332	332
Total black lung liability (dollars in millions) ⁽²⁾	\$ 58.1	\$ 63.3

(1) The discount rate is determined based on a portfolio of high-quality corporate bonds with maturities that are consistent with the estimated duration of our black lung obligations. A decrease of 25 basis points in the discount rate would have increased black lung expense by \$1.1 million in 2022.

(2) The current portion of the black lung liability was \$5.9 million and \$5.4 million at December 31, 2022 and 2021, respectively, and was included in accrued liabilities on the Consolidated Balance Sheets.

The following table summarizes annual black lung payments and (benefit) expense:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Payments	\$ 5.0	\$ 4.4	\$ 6.0
(Benefit) expense ⁽¹⁾	\$ (0.2)	\$ 3.1	\$ 15.4

(1) Black lung (benefit) expense incurred in excess of annual accretion of the black lung liability reflects the impact of changes in discount rates, current filing and approval rate assumptions and/or other changes in our actuarial assumptions.

Recent Accounting Standards

See Note 2 to our consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Our primary areas of market risk include the following: (1) changes in the price of coal and coke in certain cases, as detailed below; (2) changes in interest rates; and (3) changes in foreign currency exchange rates. We do not enter into any market risk sensitive instruments for trading purposes.

Price of coal and coke

Although we have not previously done so, we may enter into derivative financial instruments from time to time in the future to economically manage our exposure related to these market risks.

Coal is the key raw material for our cokemaking business and is the largest component of the cost of our coke. Under our long-term, take-or-pay coke sales agreements at our Domestic Coke cokemaking facilities, coal costs are a pass-through component of the coke price, provided that we are able to realize certain targeted coal-to-coke yields. As such, when targeted coal-to-coke yields are achieved, the price of coal is not a significant determining factor in the profitability of coke sold under our long-term, take-or-pay agreements, which comprise the vast majority of our sales volumes in our Domestic Coke segment.

Our long-term, take-or-pay agreements require us to meet minimum production levels and generally require us to provide replacement coke if we do not meet contractual minimum volumes. To the extent any of our facilities are unable to produce their contractual minimum volumes, and we are unable to supply coke from one of our other facilities, we are subject to market risk related to the procurement of replacement supplies.

We are subject to market risk for the price of coals used to produce coke sold into the export coke market. Export coke sales are typically based on coke market pricing at the time of sale, rather than the pass-through provisions in our long-term, take-or-pay agreements. Generally over time, market prices for metallurgical coal and coke have been correlated. We monitor the market for our coal purchases versus pricing in the coke market to optimize profitability in our export business. However, we are exposed to market risk to the extent the coal and coke markets fall out of correlation. Additionally, the timing of contracting our coal purchases versus the timing of contracting our coke sales may cause favorable or unfavorable differences between the prices at which we procure our coals and the market rates at which we are able to sell our coke into the export market. We are also subject to market risk for the price of coal as it relates to the foundry coke sales. However, our foundry coke prices are largely set at the time we negotiate our coal purchases and therefore we are less exposed to market risk as it relates to the volatility in the price of coal on our foundry coke sales.

Interest rates

We are exposed to changes in interest rates as a result of borrowing activities with variable interest rates and interest earned on our cash balances. During the years ended December 31, 2022 and 2021, the daily average outstanding balance on borrowings with variable interest rates was \$105.8 million and \$102.8 million, respectively. Assuming a 50 basis point change in LIBOR, interest expense would have been impacted by \$0.5 million in both 2022 and 2021, respectively. At December 31, 2022, we had outstanding borrowings with variable interest rates of \$35.0 million under the Revolving Facility. Subsequent to December 31, 2022, we amended the Revolving Facility to transition from a variable interest rate based on LIBOR to a variable interest rate based on the secured overnight financing rate ("SOFR"). The Company does not expect the transition from LIBOR to SOFR to have a material impact on its consolidated financial statements and disclosures. Refer to Note 11 to our consolidated financial statements for further detail.

At December 31, 2022 and 2021, we had cash and cash equivalents of \$90.0 million and \$63.8 million, respectively, which accrue interest at various rates. Assuming a 50 basis point change in the rate of interest associated with our cash and cash equivalents, interest income would have been impacted by \$0.4 million and \$0.3 million for the years ended December 31, 2022 and 2021, respectively.

Foreign currency

Because we operate outside the U.S., we are subject to risk resulting from changes in the Brazilian real currency exchange rates. The currency exchange rates are influenced by a variety of economic factors including local inflation, growth, interest rates and governmental actions, as well as other factors. Revenues and expenses of our foreign operations are translated at average exchange rates during the period and balance sheet accounts are translated at period-end exchange rates. Balance sheet translation adjustments are excluded from the results of operations and are recorded in equity as a component of accumulated other comprehensive loss. If the currency exchange rates had changed by 10 percent, we estimate the impact to our net income in 2022 and 2021 would have been approximately \$0.4 million and \$0.5 million.

Item 8. Financial Statements and Supplementary Data

**INDEX TO FINANCIAL
STATEMENTS**

	<u>Page</u>
Report of Independent Registered Public Accounting Firm	43
Consolidated Statements of Income for the Years Ended December 31, 2022, 2021 and 2020	45
Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2022, 2021 and 2020	46
Consolidated Balance Sheets at December 31, 2022 and 2021	47
Consolidated Statements of Cash Flows for the Years Ended December 31, 2022, 2021 and 2020	48
Consolidated Statements of Equity for the Years Ended December 31, 2022, 2021 and 2020	49
Notes to Consolidated Financial Statements	51
1. General and Basis of Presentation	51
2. Summary of Significant Accounting Policies	51
3. Customer Concentrations	54
4. Income Taxes	54
5. Inventories	56
6. Properties, Plants, and Equipment	57
7. Intangible Assets	57
8. Asset Retirement Obligations	58
9. Retirement Benefit Plans	58
10. Accrued Liabilities	60
11. Debt and Financing Obligations	61
12. Commitments and Contingent Liabilities	62
13. Leases	64
14. Accumulated Other Comprehensive Loss	65
15. Share-Based Compensation	66
16. Earnings Per Share	69
17. Fair Value Measurements	69
18. Revenue From Contracts with Customers	70
19. Business Segment Information	71

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
SunCoke Energy, Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of SunCoke Energy, Inc. and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022 based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of the Company's estimated black lung benefit liability

As discussed in Note 12 to the consolidated financial statements, the Company has obligations related to coal workers' pneumoconiosis, or black lung, benefits to certain former coal miners and their dependents. As of December 31, 2022, the Company's black lung benefit liability was \$58.1 million. The Company, with the assistance of an external expert, estimated the liability using an actuarial model with several assumptions.

We identified the evaluation of the Company's estimated black lung benefit liability as a critical audit matter. There was a high degree of subjective auditor judgment in evaluating the actuarial model and key assumptions in the actuarial model. The actuarial model included internally-developed assumptions related to expected claim filing patterns and expected claimant success rates. There was limited market information from which to develop these assumptions, and therefore subjective auditor judgment was required to evaluate the relevance and reliability of internally-developed information.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's process to estimate the black lung benefit liability, including controls related to the development of assumptions related to the expected claim filing patterns and claimant success rates. We evaluated the Company's assumptions related to expected claim filing patterns and the claimant success rates by comparing the assumptions to industry filing patterns and claimant success rates. We performed sensitivity analyses over the expected claim filing patterns and claimant success rate assumptions to assess their impact on the Company's estimated black lung liability. We compared the Company's historical black lung payment estimates to actual payments to assess the accuracy of previous estimates related to its black lung benefit liability. In addition, we involved actuarial professionals with specialized skills and knowledge who assisted in evaluating the expected claim filing patterns and expected claimant success rates assumptions used by the Company to estimate its black lung benefit liability by comparing the assumptions to industry standards.

/s/ KPMG LLP

We have served as the Company's auditor since 2015.

Chicago, Illinois
February 24, 2023

SunCoke Energy, Inc.
Consolidated Statements of Income

Years Ended December 31,

2022 2021 2020

(Dollars and shares in millions, except per share amounts)

Revenues			
Sales and other operating revenue	\$ 1,972.5	\$ 1,456.0	\$ 1,333.0
Costs and operating expenses			
Cost of products sold and operating expenses	1,604.9	1,118.8	1,048.2
Selling, general and administrative expenses	71.4	61.8	81.4
Depreciation and amortization expense	142.5	133.9	133.7
Total costs and operating expenses	1,818.8	1,314.5	1,263.3
Operating income	153.7	141.5	69.7
Interest expense, net	32.0	42.5	56.3
Loss (gain) on extinguishment of debt, net	—	31.9	(5.7)
Income before income tax expense	121.7	67.1	19.1
Income tax expense	16.8	18.3	10.3
Net income	104.9	48.8	8.8
Less: Net income attributable to noncontrolling interests	4.2	5.4	5.1
Net income attributable to SunCoke Energy, Inc.	\$ 100.7	\$ 43.4	\$ 3.7
Earnings attributable to SunCoke Energy, Inc. per common share:			
Basic	\$ 1.20	\$ 0.52	\$ 0.04
Diluted	\$ 1.19	\$ 0.52	\$ 0.04
Weighted average number of common shares outstanding:			
Basic	83.8	83.0	83.0
Diluted	84.6	83.7	83.2

(See Accompanying Notes)

SunCoke Energy, Inc.
Consolidated Statements of Comprehensive Income

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Net income	\$ 104.9	\$ 48.8	\$ 8.8
Other comprehensive income (loss):			
Reclassifications of actuarial loss amortization and prior service benefit to earnings (net of related tax benefit of \$0.1 million in both 2022 and 2021, and zero for 2020)	0.4	0.3	0.1
Retirement benefit plans funded status adjustment (net of related tax (expense) benefit of \$(0.9) million, \$(0.3) million and \$0.4 million, respectively)	3.1	1.0	(1.6)
Currency translation adjustment	0.2	(0.9)	(1.2)
Comprehensive income	108.6	49.2	6.1
Less: Comprehensive income attributable to noncontrolling interests	4.2	5.4	5.1
Comprehensive income attributable to SunCoke Energy, Inc.	\$ 104.4	\$ 43.8	\$ 1.0

(See Accompanying Notes)

SunCoke Energy, Inc.
Consolidated Balance Sheets

	December 31,	
	2022	2021
	(Dollars in millions, except par value amounts)	
Assets		
Cash and cash equivalents	\$ 90.0	\$ 63.8
Receivables, net	104.8	77.6
Inventories	175.2	127.0
Other current assets	4.0	3.5
Total current assets	374.0	271.9
Properties, plants and equipment (net of accumulated depreciation of \$1,276.0 and \$1,160.1 at December 31, 2022 and 2021, respectively)	1,229.3	1,287.9
Intangible assets, net	33.2	35.2
Deferred charges and other assets	18.1	20.4
Total assets	\$ 1,654.6	\$ 1,615.4
Liabilities and Equity		
Accounts payable	\$ 159.3	\$ 126.0
Accrued liabilities	61.4	53.0
Current portion of financing obligation	3.3	3.2
Total current liabilities	224.0	182.2
Long-term debt and financing obligation	528.9	610.4
Accrual for black lung benefits	52.2	57.9
Retirement benefit liabilities	16.4	21.8
Deferred income taxes	172.3	169.0
Asset retirement obligations	13.4	11.6
Other deferred credits and liabilities	24.7	27.1
Total liabilities	1,031.9	1,080.0
Equity		
Preferred stock, \$0.01 par value. Authorized 50,000,000 shares; no issued shares at both December 31, 2022 and 2021	—	—
Common stock, \$0.01 par value. Authorized 300,000,000 shares; issued 98,815,780 and 98,496,809 shares at December 31, 2022 and 2021, respectively	1.0	1.0
Treasury stock, 15,404,482 shares at both December 31, 2022 and 2021	(184.0)	(184.0)
Additional paid-in capital	728.1	721.2
Accumulated other comprehensive loss	(13.0)	(16.7)
Retained earnings (deficit)	53.5	(23.4)
Total SunCoke Energy, Inc. stockholders' equity	585.6	498.1
Noncontrolling interests	37.1	37.3
Total equity	622.7	535.4
Total liabilities and equity	\$ 1,654.6	\$ 1,615.4

(See Accompanying Notes)

SunCoke Energy, Inc.
Consolidated Statements of Cash Flows

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Cash Flows from Operating Activities:			
Net income	\$ 104.9	\$ 48.8	\$ 8.8
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	142.5	133.9	133.7
Deferred income tax expense	2.3	9.3	12.1
Share-based compensation expense	6.7	6.1	3.8
Loss (gain) on extinguishment of debt, net	—	31.9	(5.7)
Changes in working capital pertaining to operating activities:			
Receivables, net	(32.3)	(31.3)	13.2
Inventories	(48.2)	(1.1)	21.8
Accounts payable	27.4	29.5	(38.0)
Accrued liabilities	8.4	6.3	(1.0)
Other	(2.8)	(0.3)	9.1
Net cash provided by operating activities	<u>208.9</u>	<u>233.1</u>	<u>157.8</u>
Cash Flows from Investing Activities:			
Capital expenditures	(75.5)	(98.6)	(73.9)
Other investing activities	5.3	(0.7)	(1.4)
Net cash used in investing activities	<u>(70.2)</u>	<u>(99.3)</u>	<u>(75.3)</u>
Cash Flows from Financing Activities:			
Proceeds from issuance of long-term debt	—	500.0	—
Repayment of long-term debt	—	(609.3)	(55.9)
Proceeds from revolving facility	596.0	690.1	629.9
Repayment of revolving facility	(676.0)	(663.4)	(684.9)
Proceeds from financing obligation	—	—	10.0
Repayment of financing obligation	(3.2)	(2.9)	(3.0)
Debt issuance costs	—	(12.0)	—
Dividends paid	(23.6)	(20.1)	(19.9)
Shares repurchased	—	—	(7.0)
Cash distributions to noncontrolling interests	(4.4)	—	—
Other financing activities	(1.3)	(0.8)	(0.4)
Net cash used in financing activities	<u>(112.5)</u>	<u>(118.4)</u>	<u>(131.2)</u>
Net increase (decrease) in cash and cash equivalents	26.2	15.4	(48.7)
Cash and cash equivalents at beginning of year	63.8	48.4	97.1
Cash and cash equivalents at end of year	<u>\$ 90.0</u>	<u>\$ 63.8</u>	<u>\$ 48.4</u>
Supplemental Disclosure of Cash Flow Information			
Interest paid, net of capitalized interest of zero, \$0.5 million and \$0.2 million, respectively	\$ 28.5	\$ 40.0	\$ 51.8
Income taxes paid, net of refunds of \$0.5 million, \$2.9 million and \$3.0 million, respectively	\$ 14.5	\$ 2.9	\$ 1.1

(See Accompanying Notes)

SunCoke Energy, Inc.
Consolidated Statements of Equity

	Common Stock		Treasury Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Retained Deficit	Total SunCoke Energy, Inc. Equity	Non- controlling Interests	Total Equity
	Shares	Amount	Shares	Amount						
(Dollars in millions)										
At December 31, 2019	98,047,389	\$ 1.0	13,783,182	\$ (177.0)	\$ 712.1	\$ (14.4)	\$ (30.1)	\$ 491.6	\$ 26.8	\$ 518.4
Net income	—	—	—	—	—	—	3.7	3.7	5.1	8.8
Reclassification of prior service benefit and actuarial loss amortization to earnings (net of related tax)	—	—	—	—	—	0.1	—	0.1	—	0.1
Retirement benefit plans funded status adjustment (net of related tax benefit of \$0.4 million)	—	—	—	—	—	(1.6)	—	(1.6)	—	(1.6)
Currency translation adjustment	—	—	—	—	—	(1.2)	—	(1.2)	—	(1.2)
Share-based compensation	—	—	—	—	3.8	—	—	3.8	—	3.8
Share issuances, net of shares withheld for taxes	130,552	—	—	—	(0.2)	—	—	(0.2)	—	(0.2)
Share repurchases	—	—	1,621,300	(7.0)	—	—	—	(7.0)	—	(7.0)
Dividends	—	—	—	—	—	—	(20.2)	(20.2)	—	(20.2)
At December 31, 2020	98,177,941	\$ 1.0	15,404,482	\$ (184.0)	\$ 715.7	\$ (17.1)	\$ (46.6)	\$ 469.0	\$ 31.9	\$ 500.9
Net income	—	—	—	—	—	—	43.4	43.4	5.4	48.8
Reclassification of prior service benefit and actuarial loss amortization to earnings (net of related tax benefit of \$0.1 million)	—	—	—	—	—	0.3	—	0.3	—	0.3
Retirement benefit plans funded status adjustment (net of related tax expense of \$0.3 million)	—	—	—	—	—	1.0	—	1.0	—	1.0
Currency translation adjustment	—	—	—	—	—	(0.9)	—	(0.9)	—	(0.9)
Share-based compensation	—	—	—	—	6.1	—	—	6.1	—	6.1
Share issuances, net of shares withheld for taxes	318,868	—	—	—	(0.6)	—	—	(0.6)	—	(0.6)
Dividends	—	—	—	—	—	—	(20.2)	(20.2)	—	(20.2)
At December 31, 2021	98,496,809	\$ 1.0	15,404,482	\$ (184.0)	\$ 721.2	\$ (16.7)	\$ (23.4)	\$ 498.1	\$ 37.3	\$ 535.4

(See Accompanying Notes)

SunCoke Energy, Inc.
Consolidated Statements of Equity

	<u>Common Stock</u>		<u>Treasury Stock</u>		<u>Additional Paid-In Capital</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Retained (Deficit) Earnings</u>	<u>Total SunCoke Energy, Inc. Equity</u>	<u>Non- controlling Interests</u>	<u>Total Equity</u>
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>						
(Dollars in millions)										
At December 31, 2021	98,496,809	\$ 1.0	15,404,482	\$ (184.0)	\$ 721.2	\$ (16.7)	\$ (23.4)	\$ 498.1	\$ 37.3	\$ 535.4
Net income	—	—	—	—	—	—	100.7	100.7	4.2	104.9
Reclassification of prior service benefit and actuarial loss amortization to earnings (net of related tax benefit of \$0.1 million)	—	—	—	—	—	0.4	—	0.4	—	0.4
Retirement benefit plans funded status adjustment (net of related tax expense of \$0.9 million)	—	—	—	—	—	3.1	—	3.1	—	3.1
Currency translation adjustment	—	—	—	—	—	0.2	—	0.2	—	0.2
Share-based compensation	—	—	—	—	8.1	—	—	8.1	—	8.1
Share issuances, net of shares withheld for taxes	318,971	—	—	—	(1.2)	—	—	(1.2)	—	(1.2)
Dividends	—	—	—	—	—	—	(23.8)	(23.8)	—	(23.8)
Cash distribution to noncontrolling interests	—	—	—	—	—	—	—	—	(4.4)	(4.4)
At December 31, 2022	<u>98,815,780</u>	<u>\$ 1.0</u>	<u>15,404,482</u>	<u>\$ (184.0)</u>	<u>\$ 728.1</u>	<u>\$ (13.0)</u>	<u>\$ 53.5</u>	<u>\$ 585.6</u>	<u>\$ 37.1</u>	<u>\$ 622.7</u>

(See Accompanying Notes)

SunCoke Energy, Inc.

Notes to Consolidated Financial Statements

1. General and Basis of Presentation

Description of Business

SunCoke Energy, Inc. ("SunCoke Energy," "SunCoke," "Company," "we," "our" and "us") is the largest independent producer of high-quality coke in the Americas, as measured by tons of coke produced each year, and has more than 60 years of coke production experience. Coke is produced by heating metallurgical coal in a refractory oven, which releases certain volatile components from the coal, thus transforming the coal into coke. Our coke is primarily used as a principal raw material in the blast furnace steelmaking process as well as in the foundry production of casted iron, and the majority of our sales are derived from blast furnace coke sales made under long-term, take-or-pay agreements. We also export coke to international customers seeking high-quality product for their blast furnaces. We have designed, developed and built, and we currently own and operate five cokemaking facilities in the United States ("U.S.") with collective nameplate capacity to produce approximately 4.2 million tons of blast furnace coke per year. Additionally, we designed and currently operate one cokemaking facility in Brazil under licensing and operating agreements on behalf of ArcelorMittal Brasil S.A. ("ArcelorMittal Brazil"), which has approximately 1.7 million tons of annual cokemaking capacity.

We also own and operate a logistics business that provides export and domestic material handling and/or mixing services to steel, coke (including some of our domestic cokemaking facilities), electric utility, coal producing and other manufacturing based customers. Our logistics terminals, which are strategically located to reach Gulf Coast, East Coast, Great Lakes and international ports, have the collective capacity to mix and/or transload more than 40 million tons of coal and other aggregates annually and has storage capacity of approximately 3 million tons.

Consolidation and Basis of Presentation

The consolidated financial statements of the Company and its subsidiaries were prepared in accordance with accounting principles generally accepted in the U.S. ("GAAP") and include the assets, liabilities, revenues and expenses of the Company and all subsidiaries where we have a controlling financial interest. Intercompany transactions and balances have been eliminated in consolidation. Net income attributable to noncontrolling interest represents a 14.8 percent third-party interest in our Indiana Harbor cokemaking facility.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual amounts could differ from these estimates.

Revenue Recognition

The Company sells coke as well as steam and electricity and also provides mixing and/or handling services of coal and other aggregates. The Company also receives fees for operating the cokemaking plant in Brazil and for the licensing of its proprietary technology for use at this facility as well as reimbursement of substantially all of its operating costs. See Note 18.

Cash Equivalents

The Company considers all highly liquid investments with a remaining maturity of three months or less at the time of purchase to be cash equivalents. These cash equivalents consist principally of money market funds.

Inventories

Inventories are valued at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method, except for the Company's materials and supplies inventory, which are determined using the average-cost method. The Company primarily utilizes the contracted sales prices under its coke sales contracts to record lower of cost or net realizable value inventory adjustments. See Note 5.

Properties, Plants and Equipment

Plants and equipment are depreciated on a straight-line basis over their estimated useful lives. Coke and energy plant, machinery and equipment are generally depreciated over 25 to 30 years. Logistics plant and equipment are generally depreciated over 15 to 35 years. Depreciation and amortization is excluded from cost of products sold and operating

expenses and is presented separately on the Consolidated Statements of Income. Gains and losses on the disposal or retirement of fixed assets are reflected in earnings when the assets are sold or retired. Amounts incurred that extend an asset's useful life, increase its productivity or add production capacity are capitalized. Additionally, the Company generally capitalizes interest on capital projects with an expected construction period of one year or longer. The Company accounts for changes in useful lives, when appropriate, as a change in estimate, with prospective application only. Direct costs, such as outside labor, materials, internal payroll and benefits costs incurred during capital projects are capitalized; indirect costs are not capitalized. Normal repairs and maintenance costs are expensed as incurred. See Note 6.

Intangible Assets

Intangible assets are primarily comprised of permits. Intangible assets are amortized over their useful lives in a manner that reflects the pattern in which the economic benefit of the intangible asset is consumed. Intangible assets are assessed for impairment when a triggering event occurs. See Note 7.

Impairment of Long-Lived Assets

Long-lived assets, which includes intangible assets and properties, plants and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. A long-lived asset, or group of assets, is considered to be impaired when the undiscounted net cash flows expected to be generated by the asset are less than its carrying amount. Such estimated future cash flows are highly subjective and are based on numerous assumptions about future operations and market conditions. The impairment recognized is the amount by which the carrying amount exceeds the fair market value of the impaired asset, or group of assets. It is also difficult to precisely estimate fair market value because quoted market prices for our long-lived assets may not be readily available. Therefore, fair market value is generally based on the present values of estimated future cash flows using discount rates commensurate with the risks associated with the assets being reviewed for impairment. See Note 7.

Income Taxes

Income tax expense (benefit) is determined by applying the provisions of federal and state tax laws to taxable income (loss) during the period. We do business in a number of states with differing laws concerning how income subject to each state's tax structure is measured. These laws, as well as changes in tax legislation, impact what effective tax rate is applied to income generated in each state, and the Company makes estimates of how income will be apportioned among various states based on these factors. Deferred tax asset and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those differences are projected to be recovered or settled. The Company recognizes uncertain tax positions in its financial statements when minimum recognition threshold and measurement attributes are met in accordance with current accounting guidance. See Note 4.

Black Lung Benefit Liabilities

The Company has obligations related to coal workers' pneumoconiosis, or black lung, benefits of certain of our former coal miners and their dependents. We adjust our liability each year based upon actuarial calculations of our expected future payments for these benefits, including a provision for incurred but not reported losses. Adjustments are recognized in the period the adjustment occurs as a component of selling, general and administrative expense on the Consolidated Statements of Income. See Note 12.

Postretirement Benefit Plan Liabilities

The postretirement benefit plans, which are frozen, are unfunded and the accumulated postretirement benefit obligation is fully recognized on the Consolidated Balance Sheets. Actuarial gains (losses) and prior service costs (benefits) which have not yet been recognized in net income are recognized as a credit (charge) to accumulated other comprehensive income (loss). The credit (charge) to accumulated other comprehensive income (loss), which is reflected net of related tax effects, is subsequently recognized in net income when amortized as a component of postretirement benefit plans expense included in interest expense, net on the Consolidated Statements of Income. See Note 9.

Asset Retirement Obligations

The fair value of a liability for an asset retirement obligation is recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The associated asset retirement costs are capitalized as part of the carrying amount of the asset and depreciated over its remaining estimated useful life. When the assumptions used to estimate a recorded asset retirement obligation change, a revision is recorded to both the asset retirement obligation and the asset retirement cost capitalized to the extent remaining useful life exists. The Company's asset retirement obligations primarily relate to costs associated with restoring land to its original state. See Note 8.

Leases

We determine if an arrangement contains a lease at inception. We recognize right-of-use assets and lease liabilities associated with leases based on the present value of the future minimum lease payments over the lease term at the commencement date. Our leases do not provide an implicit rate of return, therefore, we use our incremental borrowing rate at the inception of the lease to calculate the present value of lease payments. Our incremental borrowing rate is determined through market sources for secured borrowings and approximates the interest rate at which we could borrow on a collateralized basis with similar terms and payments in similar economic environments. Lease terms reflect options to extend or terminate the lease when it is reasonably certain that the option will be exercised. The Company has elected to apply the short-term lease exception for all asset classes, therefore, excluding all leases with a term of less than 12 months from the balance sheet, and will recognize the lease payments in the period they are incurred. Additionally, the Company accounts for lease and non-lease components of an arrangement, such as assets and services, as a single lease component for all asset classes on existing leases. See Note 13.

Shipping and Handling Costs

Shipping and handling costs are included in cost of products sold and operating expenses on the Consolidated Statements of Income and are generally passed through to our customers. The Company has elected the practical expedient under Accounting Standards Codification ("ASC") 606, "Revenue from Contracts with Customers," to account for shipping and handling activities as a promise to fulfill the transfer of coke. See Note 18.

Share-Based Compensation

We measure the cost of employee services in exchange for equity instrument awards and cash awards based on the grant-date fair value of the award. Cash awards and the performance metrics of equity awards are remeasured on a quarterly basis. The market metrics of equity awards are not remeasured. The total cost is recognized over the requisite service period. Award forfeitures are accounted for as they occur. The costs of equity awards and cash awards are recorded to additional paid-in capital and accrued liabilities, respectively, on the Consolidated Balance Sheets. See Note 15.

Fair Value Measurements

The Company determines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As required, the Company utilizes valuation techniques that maximize the use of observable inputs (levels 1 and 2) and minimize the use of unobservable inputs (level 3) within the fair value hierarchy included in current accounting guidance. Assets and liabilities are classified within the fair value hierarchy based on the lowest level (least observable) input that is significant to the measurement in its entirety. See Note 17.

Currency Translation

The functional currency of the Company's Brazilian operations is the Brazilian real. The Company's Brazil operations translate its assets and liabilities into U.S. dollars at the current exchange rates in effect at the end of the fiscal period. The gains or losses that result from this process are shown as cumulative translation adjustments within accumulated other comprehensive loss in the Consolidated Balance Sheets. The revenue and expense accounts of foreign operations are translated into U.S. dollars at the average exchange rates during the period.

Recent Accounting Pronouncements

In December, 2022 the Financial Accounting Standards Board ("FASB") issued ASU 2022-06 *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848* as an amendment to previously issued ASU 2020-04 *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. These updates help limit the accounting impact from contract modifications due to the transition from LIBOR to alternative reference rates that are completed by December 31, 2024. The Company does not expect the transition from LIBOR to SOFR to have a material impact on the consolidated financial statements and disclosures. Refer to Note 11 for further detail.

Labor Concentrations

As of December 31, 2022, we have 887 employees in the U.S. Approximately 40 percent of our domestic employees, principally at our cokemaking operations, are represented by the United Steelworkers union under various contracts. Additionally, approximately 3 percent of our domestic employees are represented by the International Union of Operating Engineers. Labor agreements at KRT, Lake Terminal, and Indiana Harbor were renewed in 2022 and will expire on April 30, 2025, June 30, 2025, and September 1, 2026, respectively.

As of December 31, 2022, we have 285 employees at the cokemaking facility in Vitória, Brazil, all of whom are represented by a union under a labor agreement. During 2022, the labor agreement at our Vitória, Brazil facility was renewed for an additional year, and it expires on October 31, 2023.

3. Customer Concentrations

In 2022, the Company sold approximately 3.4 million tons of coke under long-term, take-or-pay contracts to its two primary customers in the U.S.: Cleveland-Cliffs Steel Holding Corporation and Cleveland-Cliffs Steel LLC, subsidiaries of Cleveland-Cliffs Inc. and collectively referred to as "Cliffs Steel," and United States Steel Corporation ("U.S. Steel").

The tables below show sales to the Company's significant customers:

	Year Ended December 31,			
	2022		2021	
	Sales and other operating revenue	Percent of Company sales and other operating revenue	Sales and other operating revenue	Percent of Company sales and other operating revenue
	(Dollars in millions)			
Cliffs Steel ⁽¹⁾	\$ 1,182.8	60.0 %	\$ 994.6	68.3 %
U.S. Steel ⁽²⁾	\$ 284.8	14.4 %	\$ 210.0	14.4 %

	Years Ended December 31,	
	2020	
	Sales and other operating revenue	Percent of Company sales and other operating revenue
	(Dollars in millions)	
Cliffs Steel / AM USA ⁽¹⁾⁽³⁾	\$ 687.3	51.6 %
Cliffs Steel / AK Steel ⁽¹⁾⁽³⁾	\$ 355.8	26.7 %
U.S. Steel ⁽²⁾	\$ 208.2	15.6 %

(1) Represents revenues included in our Domestic Coke segment.

(2) Represents revenues included in our Domestic Coke and Logistics segments.

(3) In March 2020, Cleveland-Cliffs Inc. completed the acquisition of AK Steel Holding Corporation ("AK Steel"), and subsequently changed the name of AK Steel to Cleveland-Cliffs Steel Holding Corporation. In December 2020, Cliffs completed the acquisition of ArcelorMittal USA LLC ("AM USA"), and subsequently changed the name of AM USA to Cleveland-Cliffs Steel LLC. As stated above, subsequent to the acquisitions we collectively refer to these subsidiaries as Cliffs Steel.

The Company generally does not require any collateral with respect to its receivables due under long-term, take-or-pay contracts. Receivables due from Cliffs Steel and U.S. Steel were approximately \$33.5 million and \$7.1 million as of December 31, 2022, respectively, and \$30.0 million and \$7.3 million as of December 31, 2021, respectively. These balances comprised approximately 39 percent and 48 percent of the Company's receivables balance as of December 31, 2022 and 2021, respectively. As a result, the Company experiences concentrations of credit risk in its receivables with these customers, which may be affected by changes in economic or other conditions affecting the steel industry.

4. Income Taxes

The components of income before income tax expense are as follows:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Domestic	\$ 107.1	\$ 50.4	\$ 6.1
Foreign	14.6	16.7	13.0
Total	\$ 121.7	\$ 67.1	\$ 19.1

Income tax expense consisted of the following:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Current tax expense (benefit):			
U.S. federal	\$ 4.3	\$ 0.8	\$ (4.7)
State	5.4	3.7	(0.3)
Foreign	4.8	4.5	3.2
Total current tax expense (benefit)	14.5	9.0	(1.8)
Deferred tax expense (benefit):			
U.S. federal	8.6	11.0	3.6
State	(6.3)	(1.7)	8.5
Total deferred tax expense	2.3	9.3	12.1
Total	\$ 16.8	\$ 18.3	\$ 10.3

The reconciliation of income tax expense at the U.S. statutory rate to income tax expense is as follows:

	Years Ended December 31,					
	2022		2021		2020	
	(Dollars in millions)					
Income tax expense at U.S. statutory rate	\$ 25.6	21.0 %	\$ 14.1	21.0 %	\$ 4.0	21.0 %
Increase (reduction) in income taxes resulting from:						
Income attributable to noncontrolling interests in partnerships ⁽¹⁾	(0.9)	(0.7)%	(1.1)	(1.7)%	(1.1)	(5.6)%
State and other income taxes, net of federal income tax effects ⁽²⁾	(0.9)	(0.7)%	1.6	2.4 %	7.8	41.2 %
Foreign income taxes ⁽³⁾	4.8	4.0 %	—	— %	—	— %
Impact of CARES Act ⁽⁴⁾	—	— %	—	— %	(1.5)	(7.9)%
R&D tax credit ⁽⁵⁾	(4.0)	(3.4)%	—	— %	—	— %
Non-deductible equity compensation	3.0	2.5 %	3.4	4.9 %	1.0	5.5 %
Return to provision adjustments	(0.1)	(0.1)%	(0.1)	(0.1)%	1.2	6.5 %
Change in valuation allowance ⁽³⁾	(11.0)	(9.0)%	0.5	0.8 %	(1.3)	(6.9)%
Other	0.3	0.2 %	(0.1)	(0.1)%	0.2	0.5 %
Income tax expense at effective tax rate	\$ 16.8	13.8 %	\$ 18.3	27.2 %	\$ 10.3	54.3 %

- (1) No income tax expense is reflected in the Consolidated Statements of Income for income attributable to noncontrolling interests in our Indiana Harbor cokemaking facility.
- (2) Lower apportioned state tax rates required the revaluation of certain deferred tax liabilities and resulted in deferred tax benefits of \$4.9 million and \$1.3 million recorded during 2022 and 2021, respectively. The decrease in apportioned state tax rates in 2022 was partly driven by the dissolution of SunCoke Energy Partners Finance Corp. During 2020, lower apportioned state tax rates were primarily the result of a change in the tax filing status of our Convent Marine Terminal in Louisiana from a taxable partnership to a member of the consolidated return group resulted in the revaluation of certain deferred tax assets and deferred tax expense of \$6.5 million.
- (3) During 2022, new regulations impacting foreign tax credit utilization were published, which make foreign taxes paid in future years to certain countries, including Brazil, no longer creditable in the U.S. As a result of these regulations and the impact of the Company's tax planning, SunCoke released a valuation allowance established on deferred tax assets attributable to existing foreign tax credit carryforwards, resulting in a deferred tax benefit of \$11.3 million. Additionally, foreign income taxes paid in 2022 reflected the absence of the generation of foreign tax credits for taxes paid in Brazil due to the new regulations.

- (4) On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security ("CARES Act") was enacted. The enactment of the CARES Act allows the Company to carry back net operating losses generated in 2019 to each of the five years preceding 2019. As a result of the CARES Act, SunCoke recorded a tax benefit of \$1.5 million during 2020.
- (5) As part of tax planning, SunCoke conducted an analysis with respect to the Company's research and development activities, which resulted in a \$4.0 million deferred tax benefit.

The tax effects of temporary differences that comprise the net deferred income tax liability from operations are as follows:

	December 31,	
	2022	2021
(Dollars in millions)		
Deferred tax assets:		
Retirement benefit liabilities	\$ 4.2	\$ 5.5
Black lung benefit liabilities	13.2	14.4
Share-based compensation	2.0	2.6
Federal tax credit carryforward ⁽¹⁾	8.7	17.6
Foreign tax credit carryforward ⁽²⁾	9.2	12.3
State net operating loss carryforward, net of federal income tax effects ⁽³⁾	12.9	12.6
Other liabilities not yet deductible	12.9	10.4
Total deferred tax assets	63.1	75.4
Less: valuation allowance ⁽⁴⁾	(9.2)	(20.2)
Deferred tax asset, net	53.9	55.2
Deferred tax liabilities:		
Properties, plants and equipment	(155.4)	(151.0)
Investment in partnerships	(70.8)	(73.2)
Total deferred tax liabilities	(226.2)	(224.2)
Net deferred tax liability	\$ (172.3)	\$ (169.0)

- (1) Federal tax credit carryforward expires in 2033 through 2041.
- (2) Foreign tax credit carryforward expires in 2027 through 2031.
- (3) State net operating loss carryforward, net of federal income tax effects expires in 2032 through 2043.
- (4) Primarily related to state net operating loss carryforwards.

The Company's consolidated federal income tax returns have been examined by the IRS for all years through the year ended December 31, 2014. SunCoke is currently open to examination by the IRS for tax years ended December 31, 2019 and forward.

State and foreign income tax returns are generally subject to examination for a period of three to five years after the filing of the respective returns. The state impact of any amended federal returns remains subject to examination by various states for a period of up to one year after formal notification of such amendments to the states.

Uncertain Tax Positions

During the year, the company recorded \$0.3 million of expense related to uncertain prior year tax positions and the balance of unrecognized tax benefits at December 31, 2022 remains at approximately \$0.3 million that, if recognized, will reduce the effective tax rate on income from continuing operations.

There were no uncertain tax positions recorded at December 31, 2021 and 2020, and there were no associated interest or penalties recognized for the years ended December 31, 2022, 2021 or 2020. The Company expects that nominal unrecognized tax benefits pertaining to income tax matters will be required in the next twelve months.

5. Inventories

The Company's inventory consists of metallurgical coal, which is the principal raw material for the Company's cokemaking operations, coke, which is the finished good sold by the Company to its customers, and materials, supplies and other. These components of inventories, net of lower of cost or net realizable value adjustments of \$2.6 million, were as follows:

	December 31,	
	2022	2021
	(Dollars in millions)	
Coal	\$ 109.4	\$ 63.5
Coke	14.3	16.6
Materials, supplies and other	51.5	46.9
Total inventories	<u>\$ 175.2</u>	<u>\$ 127.0</u>

6. Properties, Plants, and Equipment

The components of net properties, plants and equipment were as follows:

	December 31,	
	2022	2021
	(Dollars in millions)	
Coke and energy plant, machinery and equipment	\$ 2,134.9	\$ 2,077.3
Logistics plant, machinery and equipment	176.6	170.7
Land and land improvements	106.8	105.5
Construction-in-progress	40.7	50.8
Other	46.3	43.7
Gross investment, at cost	2,505.3	2,448.0
Less: accumulated depreciation	(1,276.0)	(1,160.1)
Total properties, plants and equipment, net	<u>\$ 1,229.3</u>	<u>\$ 1,287.9</u>

7. Intangible Assets

Intangible assets, net, include goodwill allocated to our Domestic Coke segment of \$3.4 million at both December 31, 2022 and 2021, and other intangibles detailed in the table below, excluding fully amortized intangible assets. There were no changes in the carrying amount of goodwill during the fiscal years ended December 31, 2022 and 2021, respectively.

	Weighted - Average Remaining Amortization Years	December 31, 2022			December 31, 2021		
		Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
		(Dollars in millions)					
Customer relationships	2	6.7	5.6	1.1	6.7	5.0	1.7
Permits	20	31.7	4.5	27.2	31.7	3.1	28.6
Other	28	1.6	0.1	1.5	1.6	0.1	1.5
Total		<u>\$ 40.0</u>	<u>\$ 10.2</u>	<u>\$ 29.8</u>	<u>\$ 40.0</u>	<u>\$ 8.2</u>	<u>\$ 31.8</u>

The permits above represent the environmental and operational permits required to operate a coal export terminal in accordance with the U.S. Environmental Protection Agency ("EPA") and other regulatory bodies. Intangible assets are amortized over their useful lives in a manner that reflects the pattern in which the economic benefit of the asset is consumed. The permits' useful lives were estimated to be 27 years at acquisition based on the expected useful life of the significant operating equipment at the facility. We have historical experience of renewing and extending similar arrangements at our other facilities and intend to continue to renew our permits as they come up for renewal for the foreseeable future. The permits were renewed regularly prior to our acquisition of CMT. These permits have an average remaining renewal term of approximately 5.4 years.

Total amortization expense for intangible assets subject to amortization was \$2.0 million, \$2.0 million and \$2.5 million for the years ended December 31, 2022, 2021 and 2020, respectively. Based on the carrying value of finite-lived intangible assets as of December 31, 2022, we estimate amortization expense for each of the next five years as follows:

	(Dollars in millions)	
2023	\$	2.0
2024		1.9
2025		1.5
2026		1.5
2027		1.4
Thereafter		21.5
Total	\$	<u>29.8</u>

8. Asset Retirement Obligations

The Company has asset retirement obligations, primarily in the Domestic Coke segment, related to certain contractual obligations. These contractual obligations mostly relate to costs associated with restoring land to its original state, and may require the retirement and removal of long-lived assets from certain cokemaking properties as well as other reclamation obligations related to our former coal mining business. The Federal Surface Mining Control and Reclamation Act of 1977 and similar state statutes require that mine property be restored in accordance with specified standards and an approved reclamation plan. We do not have any unrecorded asset retirement obligations.

The following table provides a reconciliation of changes in the asset retirement obligation from operations during each period:

	Years ended December 31,	
	2022	2021
Asset retirement obligation at beginning of year	\$ 12.3	\$ 11.4
Liabilities settled	—	(0.1)
Accretion expense ⁽¹⁾	0.9	0.9
Revisions in estimated cash flows	0.6	0.1
Asset retirement obligation at end of year ⁽²⁾	<u>\$ 13.8</u>	<u>\$ 12.3</u>

- (1) Included in cost of products sold and operating expenses on the Consolidated Statements of Income.
- (2) The current portion of asset retirement obligation liabilities, which totaled \$0.4 million and \$0.7 million at December 31, 2022 and December 31, 2021, respectively, is classified in accrued liabilities on the Consolidated Balance Sheets.

9. Retirement Benefits Plans

Postretirement Health Care and Life Insurance Plans

The Company has plans which provide health care and life insurance benefits for many of its retirees (“postretirement benefit plans”). The postretirement benefit plans are unfunded and the costs are borne by the Company. Effective January 1, 2011, postretirement medical benefits for future retirees were phased out or eliminated for non-mining employees with less than ten years of service.

Postretirement benefit plans expense consisted of the following components:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Interest cost on benefit obligations	\$ 0.6	\$ 0.5	\$ 0.7
Amortization of:			
Actuarial losses	0.7	0.8	0.7
Prior service benefit	(0.2)	(0.4)	(0.5)
Total expense	<u>\$ 1.1</u>	<u>\$ 0.9</u>	<u>\$ 0.9</u>

Postretirement benefit plans expense is determined using actuarial assumptions as of the beginning of the year or using weighted-average assumptions when curtailments, settlements and/or other events require a plan remeasurement. The following assumptions were used to determine postretirement benefit plans expense:

	December 31,		
	2022	2021	2020
Discount rate	2.50 %	2.00 %	2.90 %

The following amounts were recognized as components of other comprehensive income (loss) before related tax impacts:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Reclassifications to earnings of:			
Actuarial loss amortization	\$ 0.7	\$ 0.8	\$ 0.7
Prior service benefit amortization	(0.2)	(0.4)	(0.5)
Retirement benefit plan funded status adjustments:			
Actuarial gains (losses)	4.0	1.3	(2.0)
	<u>\$ 4.5</u>	<u>\$ 1.7</u>	<u>\$ (1.8)</u>

The following table sets forth the components of the changes in benefit obligations:

	Years Ended December 31,	
	2022	2021
	(Dollars in millions)	
Benefit obligation at beginning of year	\$ 24.4	\$ 27.5
Interest cost	0.6	0.5
Actuarial gains	(4.0)	(1.3)
Benefits paid	(2.2)	(2.3)
Benefit obligation at end of year ⁽¹⁾	<u>\$ 18.8</u>	<u>\$ 24.4</u>

(1) The current portion of retirement benefit liabilities, which totaled \$2.4 million and \$2.6 million at December 31, 2022 and 2021, respectively, is classified in accrued liabilities on the Consolidated Balance Sheets.

The following table sets forth the cumulative amounts not yet recognized in net income:

	Years Ended December 31,	
	2022	2021
	(Dollars in millions)	
Cumulative amounts not yet recognized in net income:		
Actuarial losses	\$ 5.2	\$ 10.0
Prior service benefits	(0.8)	(1.1)
Accumulated other comprehensive loss (before related tax benefit)	<u>\$ 4.4</u>	<u>\$ 8.9</u>

The expected benefit payments through 2032 for the postretirement benefit plan are as follows:

	(Dollars in millions)	
Year ending December 31:		
2023	\$	2.4
2024	\$	2.3
2025	\$	2.1
2026	\$	1.9
2027	\$	1.8
2028 through 2032	\$	7.1

The measurement date for the Company's postretirement benefit plans is December 31. The following discount rates were used to determine the benefit obligation:

	December 31,	
	2022	2021
Discount rate	5.25 %	2.50 %

The health care cost trend assumption used at December 31, 2022 to compute the accumulated postretirement benefit obligation for the postretirement benefit plans was 7.00 percent, which is assumed to decline gradually to 5.00 percent in 2031 and to remain at that level thereafter. The health care cost trend assumption used at December 31, 2021 to compute the accumulated postretirement benefit obligation for the postretirement benefit plan was 6.00 percent, which is assumed to decline gradually to 5.00 percent in 2026 and to remain at that level thereafter.

Defined Contribution Plans

The Company has defined contribution plans which provide retirement benefits for certain of its employees. The Company's contributions, which are principally based on the Company's pretax income and the aggregate compensation levels of participating employees and are charged against income as incurred, amounted to \$7.9 million, \$6.9 million and \$6.6 million for the years ended December 31, 2022, 2021 and 2020, respectively.

10. Accrued Liabilities

Accrued liabilities consist of following:

	December 31,	
	2022	2021
	(Dollars in millions)	
Accrued benefits	\$ 29.7	\$ 21.7
Current portion of postretirement benefit obligation	2.4	2.6
Other taxes payable	9.8	9.2
Current portion of black lung liability	5.9	5.4
Accrued legal	4.9	4.5
Other	8.7	9.6
Total accrued liabilities	<u>\$ 61.4</u>	<u>\$ 53.0</u>

11. Debt and Financing Obligations

Total debt and financing obligations consisted of the following:

	December 31,	
	2022	2021
	(Dollars in millions)	
4.875 percent senior notes, due 2029 ("2029 Senior Notes")	\$ 500.0	\$ 500.0
\$350.0 revolving credit facility, due 2026 ("Revolving Facility")	35.0	115.0
5.346 percent financing obligation, due 2024	8.8	12.0
Total borrowings	\$ 543.8	\$ 627.0
Debt issuance costs	(11.6)	(13.4)
Total debt and financing obligation	\$ 532.2	\$ 613.6
Less: current portion of long-term debt and financing obligation	3.3	3.2
Total long-term debt and financing obligation	\$ 528.9	\$ 610.4

2029 Senior Notes

The 2029 Senior Notes are the senior secured obligations of the Company. Interest on the 2029 Senior Notes is payable semi-annually in cash in arrears on June 30 and December 30 of each year. The Company may redeem some or all of the 2029 Senior Notes at its option, in whole or part, at the dates and amounts set forth in the applicable indenture.

The applicable indenture for the 2029 Senior Notes contains covenants that, among other things, limit the Company's ability and, in certain circumstances, the ability of certain of the Company's subsidiaries to (i) borrow money, (ii) create liens on assets, (iii) pay dividends or make other distributions on or repurchase or redeem the Company's capital stock, (iv) prepay, redeem or repurchase certain debt, (v) make loans and investments, (vi) sell assets, (vii) incur liens, (viii) enter into transactions with affiliates, (ix) enter into agreements restricting the ability of subsidiaries to pay dividends and (x) consolidate, merge or sell all or substantially all of the Company's assets.

Revolving Facility

The proceeds of any borrowings made under the Revolving Facility can be used to finance working capital needs, acquisitions, capital expenditures and for other general corporate purposes. The obligations under the credit agreement are guaranteed by certain of the Company's subsidiaries and secured by liens on substantially all of the Company's and the guarantors' assets pursuant to a guarantee and collateral agreement.

As of December 31, 2022, the Revolving Facility had an outstanding balance of \$35.0 million, leaving \$315.0 million available. Additionally, the Company has certain letters of credit totaling \$22.9 million, which do not reduce the Revolving Facility's available balance. Commitment fees are based on the unused portion of the Revolving Facility at a rate of 0.20 percent.

As of December 31, 2022, loans under the Revolving Facility bore interest at a variable per annum rate based upon, at SunCoke's option, either an adjusted base rate ("ABR") or an adjusted London Interbank Offered Rate ("LIBOR"), in each case plus an applicable margin. Subsequent to December 31, 2022, we amended the Revolving Facility to transition from a variable interest rate based on LIBOR to a variable interest rate based on the secured overnight financing rate ("SOFR"). After giving effect to that amendment, loans under the Revolving Facility bear interest, at SunCoke's option, at a rate per annum equal to either (i) an adjusted term SOFR rate (defined as SOFR for a specified term plus a credit spread adjustment of 10 basis points, subject to a zero percent floor) plus 1.75 percent or (ii) an ABR plus 0.75 percent. The applicable margin is subject to change based on SunCoke's consolidated leverage ratio, as defined in the credit agreement. The weighted-average interest rate for borrowings outstanding under the Revolving Facility was 3.3 percent during 2022.

The Company does not expect the transition from LIBOR to SOFR to have a material impact on its consolidated financial statements and disclosures.

Financing Obligation

The Company has a sale-leaseback arrangement related to certain coke and logistics equipment. The arrangement has an initial period of 48 months beginning December 2020, and an early buyout option after 36 months to purchase the equipment at a fixed rate. The arrangement is accounted for as a financing transaction, resulting in a financing obligation on the Consolidated Balance Sheets.

Covenants

Under the terms of the Revolving Facility, the Company is subject to a maximum consolidated leverage ratio of 4.50:1.00 and a minimum consolidated interest coverage ratio of 2.50:1.00. The Company's debt agreements contains other covenants and events of default that are customary for similar agreements and may limit our ability to take various actions including our ability to pay a dividend or repurchase our stock.

If we fail to perform our obligations under these and other covenants, the lenders' credit commitment could be terminated and any outstanding borrowings, together with accrued interest, under the Revolving Facility could be declared immediately due and payable. The Company has a cross default provision that applies to our indebtedness having a principal amount in excess of \$35 million.

As of December 31, 2022, the Company was in compliance with all debt covenants. We do not anticipate violation of these covenants nor do we anticipate that any of these covenants will restrict our operations or our ability to obtain additional financing.

Maturities

As of December 31, 2022, the combined aggregate amount of maturities for long-term borrowings for each of the next five years is as follows:

	(Dollars in millions)
2023	\$ 3.3
2024	5.5
2025	—
2026	35.0
2027	—
2028-Thereafter	500.0
Total	<u>\$ 543.8</u>

12. Commitments and Contingent Liabilities

Legal Matters

Between 2005 and 2012, the EPA and the Ohio Environmental Protection Agency (“OEPA”) issued Notices of Violations (“NOVs”), alleging violations of air emission operating permits for our Haverhill and Granite City cokemaking facilities. We worked in a cooperative manner with the EPA, the OEPA and the Illinois Environmental Protection Agency to address the allegations and, in November 2014, entered into a consent decree with these parties in federal district court in the Southern District of Illinois. The consent decree included a civil penalty paid in December 2014, and a commitment to undertake capital projects to improve reliability and enhance environmental performance. Although all projects regarding the consent decree have been completed, the consent decree remains in effect and is being overseen for compliance.

Between 2010 and 2016, SunCoke Energy also received certain NOVs, Findings of Violations (“FOVs”), and information requests from the EPA, alleging violations of air operating permit conditions related to our Indiana Harbor cokemaking facility. To reach a settlement of these NOVs and FOVs, a consent decree with the EPA and the Indiana Department of Environmental Management was entered by the federal district court in the Northern District of Indiana during the fourth quarter of 2018. After Indiana Harbor completed all consent decree requirements, the federal district court terminated the consent decree in January, 2023.

The Company is a party to certain pending and threatened claims, including matters related to commercial disputes, employment claims, personal injury claims, common law tort claims, and environmental claims. Although the ultimate outcome of these claims cannot be ascertained at this time, it is reasonably possible that some portion of these claims could be resolved unfavorably to the Company. Management of the Company believes that any liability which may arise from these claims would likely not have a material adverse impact on our consolidated financial statements. SunCoke's threshold for disclosing material environmental legal proceedings involving a government authority where potential monetary sanctions are involved is \$1 million.

Black Lung Benefit Liabilities

The Company has obligations related to coal workers' pneumoconiosis, or black lung, to provide benefits to certain of its former coal miners and their dependents. Such benefits are provided for under Title IV of the Federal Coal Mine and Safety Act of 1969 and subsequent amendments, as well as for black lung benefits provided in the states of Virginia, Kentucky and West Virginia pursuant to workers' compensation legislation. The Patient Protection and Affordable Care Act ("PPACA"), which was implemented in 2010 and amended previous legislation related to coal workers' black lung obligations, provides for the automatic extension of awarded lifetime benefits to surviving spouses and changes the legal criteria used to assess and award claims.

We adjust our liability each year based upon actuarial calculations of our expected future payments for these benefits. Our independent actuarial consultants calculate the present value of the estimated black lung liability annually based on actuarial models utilizing our population of former coal miners, historical payout patterns of both the Company and the industry, actuarial mortality rates, medical costs, death benefits, dependents, discount rates and the current federally mandated payout rates. The estimated liability may be impacted by future changes in the statutory mechanisms, modifications by court decisions and changes in filing patterns by claimants and their advisors, the impact of which cannot be estimated.

The following table summarizes discount rates utilized, active claims and the total black lung liabilities:

	December 31,	
	2022	2021
Discount rate ⁽¹⁾	4.9 %	2.4 %
Active claims	332	332
Total black lung liability (dollars in millions) ⁽²⁾	\$ 58.1	\$ 63.3

- (1) The discount rate is determined based on a portfolio of high-quality corporate bonds with maturities that are consistent with the estimated duration of our black lung obligations. A decrease of 25 basis points in the discount rate would have increased black lung expense by \$1.1 million in 2022.
- (2) The current portion of the black lung liability was \$5.9 million and \$5.4 million at December 31, 2022 and 2021, respectively, and was included in accrued liabilities on the Consolidated Balance Sheets.

The following table summarizes annual black lung payments and (benefit) expense:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Payments	\$ 5.0	\$ 4.4	\$ 6.0
(Benefit) expense ⁽¹⁾	\$ (0.2)	\$ 3.1	\$ 15.4

- (1) Black lung (benefit) expense incurred in excess of annual accretion of the black lung liability reflects the impact of changes in discount rates, current filing and approval rate assumptions and/or other changes in our actuarial assumptions.

On February 1, 2013, SunCoke obtained commercial insurance for black lung claims in excess of a deductible for employees with a last date of employment after that date. Also during 2013, we were reauthorized to continue to self-insure black lung liabilities incurred prior to February 1, 2013 by the U.S. Department of Labor's Division of Coal Mine Workers' Compensation ("DCMWC") in exchange for \$8.4 million of collateral. In July 2019, the DCMWC required that SunCoke, along with a number of other companies, file an application and supporting documentation for reauthorization to self-insure any legacy black lung obligations incurred prior to February 1, 2013. The Company provided the requested information in the fourth quarter of 2019. The DCMWC subsequently notified the Company in a letter dated February 21, 2020 that the Company was reauthorized to self-insure certain of its black lung obligations; however, the reauthorization is contingent upon the Company providing collateral of \$40.4 million to secure certain of its black lung obligations. This proposed collateral requirement is a substantial increase from the \$8.4 million in collateral that the Company currently provides to secure these self-insured black lung obligations. The reauthorization process provided the Company with the right to appeal the security determination. SunCoke exercised its right to appeal the DCMWC's security determination and provided additional information supporting the Company's position in May 2020 and February 2021. If the Company's appeal is unsuccessful, the Company may be required to provide additional collateral to receive the self-insurance reauthorization from the DCMWC, which could potentially reduce the Company's liquidity. Additionally, on January 19, 2023, the Department of

Labor issued a new proposed rule that would require self-insured companies to post collateral in the amount of 120 percent of the company's total expected lifetime black lung obligations as determined by the DCMWC. While this new proposed rule is not effective, if finalized, it could potentially reduce the Company's liquidity. We will submit comments on this proposed rule and continue to monitor any impact to the Company.

13. Leases

The Company's operating leases consist primarily of leases for land, office space, equipment, railcars and locomotives. Certain of our long-term leases include one or more options to renew or to terminate, with renewal terms that can extend the lease term from one month to 50 years. The Company's finance leases are immaterial to our consolidated financial statements.

The components of lease expense were as follows:

	Year ended December 31, 2022	Year ended December 31, 2021
(Dollars in millions)		
Operating leases:		
Cost of products sold and operating expenses	\$ 2.3	\$ 1.9
Selling, general and administrative expenses	0.4	0.5
	<u>\$ 2.7</u>	<u>\$ 2.4</u>
Short-term leases:		
Cost of products sold and operating expenses ⁽¹⁾⁽²⁾	5.5	6.0
Total lease expense	<u>\$ 8.2</u>	<u>\$ 8.4</u>

- (1) Includes expenses for month-to-month equipment leases, which are classified as short-term as the Company is not reasonably certain to renew the lease term beyond one month.
- (2) Includes variable lease expenses, which are immaterial to the consolidated financial statements.

Supplemental balance sheet information related to leases was as follows:

	Financial Statement Classification	December 31, 2022	December 31, 2021
(Dollars in millions)			
Operating ROU assets	Deferred charges and other assets	<u>\$ 11.3</u>	<u>\$ 12.9</u>
Operating lease liabilities:			
Current operating lease liabilities	Accrued liabilities	\$ 2.0	\$ 1.9
Noncurrent operating lease liabilities	Other deferred credits and liabilities	8.5	9.8
Total operating lease liabilities		<u>\$ 10.5</u>	<u>\$ 11.7</u>

The weighted average remaining lease term and weighted average discount rate were as follows:

	December 31, 2022	December 31, 2021
Weighted average remaining lease term of operating leases	5.9 years	6.7 years
Weighted average discount rate of operating leases	4.2 %	4.2 %

Supplemental cash flow information related to leases was as follows:

	Year Ended December 31, 2022	Year Ended December 31, 2021
(Dollars in millions)		
Operating cash flow information:		
Cash paid for amounts included in the measurement of operating lease liabilities	\$ 2.4	\$ 2.7
Non-cash activity:		
ROU assets obtained in exchange for new operating lease liabilities	\$ 0.6	\$ 3.9

Maturities of operating lease liabilities as of December 31, 2022 are as follows:

	(Dollars in millions)	
Year ending December 31:		
2023	\$	2.4
2024		2.2
2025		2.1
2026		1.5
2027		1.2
2028-Thereafter		2.5
Total lease payments		11.9
Less: imputed interest		1.4
Total lease liabilities	\$	10.5

14. Accumulated Other Comprehensive Loss

The following tables set forth the changes in the balance of accumulated other comprehensive loss, net of tax, by component:

	Benefit Plans	Currency Translation Adjustments	Total
	(Dollars in millions)		
At December 31, 2020	\$ (8.2)	\$ (8.9)	\$ (17.1)
Other comprehensive income (loss) before reclassifications / adjustments	0.3	(0.9)	(0.6)
Retirement benefit plans funded status adjustment	1.0	—	1.0
Net current period change in accumulated other comprehensive loss	1.3	(0.9)	0.4
At December 31, 2021	\$ (6.9)	\$ (9.8)	\$ (16.7)
Other comprehensive income before reclassifications / adjustments	0.4	0.2	0.6
Retirement benefit plans funded status adjustment	3.1	—	3.1
Net current period change in accumulated other comprehensive loss	3.5	0.2	3.7
At December 31, 2022	\$ (3.4)	\$ (9.6)	\$ (13.0)

The tax benefit associated with the Company's benefit plans as of December 31, 2022 and 2021 was \$1.0 million and \$2.0 million, respectively.

The increase in net income due to reclassification adjustments from accumulated other comprehensive income were as follows⁽¹⁾:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Amortization of benefit plans to net income: ⁽²⁾			
Actuarial loss	\$ (0.7)	\$ (0.8)	\$ (0.6)
Prior service benefit	0.2	0.4	0.5
Total before taxes	(0.5)	(0.4)	(0.1)
Income tax	0.1	0.1	—
Total, net of tax	\$ (0.4)	\$ (0.3)	\$ (0.1)

(1) Amounts in parentheses indicate debits to net income.

- (2) These accumulated other comprehensive loss components are included in the computation of postretirement benefit plan expense and included in interest expense, net on the Consolidated Statements of Income. See Note 9.

15. Share-Based Compensation

Equity Classified Awards.

On May 12, 2022, the Company adopted the SunCoke Energy, Inc. Omnibus Long-Term Incentive Plan (the "Omnibus Plan"). The Omnibus Plan provides for the grant of equity-based awards including stock options and share units, or restricted stock, to the Company's Board of Directors and certain employees selected for participation in the plan. The total number of shares of common stock authorized for issuance under the Omnibus Plan consists of (i) 2,700,000 new shares, (ii) 2,434,445 shares of common stock reserved for issuance primarily under the previous SunCoke Energy, Inc. Long-Term Performance Enhancement Plan ("SunCoke LTPEP"), which all equity based awards were issued under prior to the effective date of May 12, 2022, and (iii) any shares of common stock subject to awards granted under the SunCoke LTPEP that were outstanding on the effective date and that, on or after such date, are not issued or delivered to a participant. As of the effective date, new awards will no longer be granted under the SunCoke LTPEP. Awards previously granted under the SunCoke LTPEP, and described in further detail below, were not modified or impacted by the adoption of the Omnibus Plan.

Stock Options

Stock options granted by the Company vest in three equal annual installments beginning one year from the date of grant, and expire ten years from the date of grant. The Company calculates the value of each employee stock option, estimated on the date of grant, using the Black-Scholes option pricing model. There were no stock options granted by the Company during the years ended December 31, 2022, 2021 and 2020.

The following table summarizes information with respect to common stock option awards outstanding as of December 31, 2022 and stock option activity during the fiscal year then ended:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (millions)
Outstanding at December 31, 2021	2,087,505	\$ 14.59	3.2	0.1
Exercised	(60,618)	\$ 6.03		
Expired	(506,677)	\$ 14.23		
Outstanding and Exercisable at December 31, 2022	<u>1,520,210</u>	\$ 15.06	2.7	0.2

Intrinsic value for stock options is defined as the difference between the current market value of our common stock and the exercise price of the stock options. Total intrinsic value of stock options exercised in 2022 and 2021 was \$0.2 million and \$0.3 million, respectively. In 2020 the amount was immaterial.

Restricted Stock Units Settled in Shares

The Company issues restricted stock units ("RSUs") to be settled in shares of the Company's common stock to certain employees and members of the Board of Directors. The Company granted the following RSUs during the years ended December 31, 2022, 2021 and 2020:

	Number of RSUs	Weighted Average Grant-Date Fair Value per Unit	Grant Date Fair Value (Dollars in millions)
2022 grants	346,600	\$ 7.62	\$ 2.6
2021 grants	463,476	\$ 6.72	\$ 3.1
2020 grants	304,332	\$ 6.04	\$ 1.8

The RSUs granted to employees vest and become payable in three annual installments beginning one year from the date of grant. RSUs granted to the Company's Board of Directors vest upon grant, but are paid upon termination of board service.

The following table summarizes information with respect to RSUs outstanding as of December 31, 2022 and RSU activity during the fiscal year then ended:

	Number of RSUs	Weighted Average Grant- Date Fair Value per Unit
Nonvested at December 31, 2021	568,018	\$ 6.70
Granted	346,600	\$ 7.62
Vested	(243,640)	\$ 6.96
Nonvested at December 31, 2022	670,978	\$ 7.08

Total grant date fair value of RSUs vested was \$1.7 million, \$1.2 million and \$0.6 million during 2022, 2021 and 2020, respectively.

Performance Share Units

The Company grants performance share units ("PSUs"), which represent the right to receive shares of the Company's common stock, contingent upon the attainment of Company performance and market goals and continued employment.

The Company granted the following PSUs during the years ended December 31, 2022, 2021 and 2020:

	Number of PSUs	Weighted Average Grant Date Fair Value per Unit	Grant Date Fair Value (Dollars in millions)
2022 grant ⁽¹⁾	154,860	\$ 8.40	\$ 1.3
2021 grant ⁽¹⁾	177,176	\$ 7.60	\$ 1.3
2020 grant ⁽¹⁾	228,248	\$ 6.70	\$ 1.5

- (1) The service period for the 2022, 2021, and 2020 PSUs ends on December 31, 2024, 2023 and 2022, and the awards will vest during the first quarter of 2025, 2024 and 2023, respectively. The service period for certain retiree eligible participants is accelerated.

The PSU grants were split 50/50 between the Company's three-year cumulative Adjusted EBITDA performance measure and the Company's three-year average pre-tax return on capital ("ROIC") performance measure for its coke and logistics businesses and unallocated corporate expenses. The number of PSUs ultimately awarded will be determined by the Adjusted EBITDA and ROIC performance versus targets and the Company's three-year total shareholder return ("TSR") as compared to the TSR of the companies making up the NASDAQ U.S. Benchmark Iron & Steel Index ("TSR Modifier"). The TSR Modifier can impact the payout (between 80 percent and 120 percent of the 2022 awards, and between 75 percent and 125 percent of the 2021 and 2020 awards) of the Company's final performance measure results. The 2022, 2021 and 2020 awards may vest between 25 percent and 250 percent of the original units granted. The fair value of the PSUs granted is based on the closing price of our common stock on the date of grant as well as a Monte Carlo simulation for the valuation of the TSR Modifier.

The following table summarizes information with respect to unearned PSUs outstanding as of December 31, 2022 and PSU activity during the fiscal year then ended:

	Number of PSUs	Weighted Average Grant Date Fair Value per Unit
Nonvested at December 31, 2021	527,015	\$ 8.38
Granted	154,860	\$ 8.40
Performance adjustments	(1,101)	\$ 10.79
Vested	(182,028)	\$ 10.79
Nonvested at December 31, 2022	498,746	\$ 7.21

Liability Classified Awards

Restricted Stock Units Settled in Cash

During the years ended December 31, 2022, 2021 and 2020, the Company issued 250,615, 230,056 and 263,998 restricted stock units to be settled in cash ("Cash RSUs"), respectively, which vest in three annual installments beginning one year from the grant date. The weighted average grant date fair value of the Cash RSUs granted during the years ended December 31, 2022, 2021 and 2020, was \$7.56, \$6.68 and \$6.04, respectively, and was based on the closing price of our common stock on the day of grant. The Cash RSU liability at December 31, 2022 was adjusted based on the closing price of our common stock on December 31, 2022 of \$8.63 per share. The Cash RSU liability was \$2.4 million at December 31, 2022 and was \$1.9 million at December 31, 2021.

Cash Incentive Award

The Company also granted share-based compensation to eligible participants under the SunCoke Energy, Inc. Long-Term Cash Incentive Plan ("SunCoke LTCIP"), which became effective January 1, 2016. The SunCoke LTCIP is designed to provide for performance-based, cash-settled awards. All awards vest immediately upon a change in control and a qualifying termination of employment as defined by the SunCoke LTCIP. As of May 12, 2022, performance-based, cash settled awards will be granted under the new Omnibus Plan. The awards previously granted under the SunCoke LTCIP were not modified or impacted by the adoption of the Omnibus Plan. The cash incentive award liability will continue to be included in accrued liabilities and other deferred credits and liabilities on the Consolidated Balance Sheets under the Omnibus Plan.

The Company issued a grant date fair value award of \$2.0 million, \$2.1 million and \$2.0 million during the years ended December 31, 2022, 2021 and 2020, respectively, for which the service periods end on December 31, 2024, 2023 and 2022, respectively, and the awards will vests during the first quarter of 2025, 2024 and 2023, respectively. The service period for certain retiree eligible participants is accelerated. The 2022, 2021 and 2020 awards are split 50/50 between the Adjusted EBITDA and ROIC metrics, consistent with the PSU awards, but is not impacted by the TSR modifier. See above for details.

The cash incentive award liability at December 31, 2022 was adjusted based on the Company's three-year cumulative Adjusted EBITDA performance and adjusted average pre-tax return on capital for the Company's coke and logistics businesses and unallocated corporate expenses. The cash incentive award liability was \$8.7 million at December 31, 2022 and \$4.1 million at December 31, 2021.

Summary of Share-Based Compensation Expense

Below is a summary of the compensation expense, unrecognized compensation costs, the period for which the unrecognized compensation cost is expected to be recognized over for each award:

	Years Ended December 31,						December 31, 2022	
	2022	2021	2020	2022	2021	2020	Unrecognized Compensation Cost	Weighted Average Remaining Recognition Period
	Compensation Expense ⁽¹⁾			Net of tax			(Dollars in millions)	(Years)
	(Dollars in millions)							
Equity Awards:								
Stock Options	\$ —	\$ 0.1	\$ 0.3	\$ —	\$ 0.1	\$ 0.3	\$ —	—
RSUs	2.5	2.3	1.9	1.9	1.8	1.5	\$ 0.4	1.7
PSUs	3.9	3.4	1.5	3.0	2.6	1.2	\$ 0.7	1.7
Total equity awards	\$ 6.4	\$ 5.8	\$ 3.7	\$ 4.9	\$ 4.5	\$ 3.0		
Liability Awards:								
Cash RSUs	\$ 2.1	\$ 1.7	\$ 0.8	\$ 1.6	\$ 1.3	\$ 0.6	\$ 1.6	1.8
Cash incentive award	5.1	3.4	0.6	3.9	2.6	0.4	\$ 2.0	1.6
Total liability awards	\$ 7.2	\$ 5.1	\$ 1.4	\$ 5.5	\$ 3.9	\$ 1.0		

(1) Compensation expense is recognized by the Company in selling, general and administrative expenses on the Consolidated Statements of Income.

The Company issued \$0.3 million, \$0.3 million, and \$0.1 million of share-based compensation to the Company's Board of Directors during the years ended December 31, 2022, 2021 and 2020, respectively.

16. Earnings Per Share

Basic earnings per share ("EPS") has been computed by dividing net income available to SunCoke Energy, Inc. by the weighted average number of shares outstanding during the period. Except where the result would be anti-dilutive, diluted earnings per share has been computed to give effect to share-based compensation awards using the treasury stock method.

The following table sets forth the reconciliation of the weighted-average number of common shares used to compute basic earnings per share to those used to compute diluted EPS:

	Years Ended December 31,		
	2022	2021	2020
	(Shares in millions)		
Weighted-average number of common shares outstanding-basic	83.8	83.0	83.0
Add: effect of dilutive share-based compensation awards	0.8	0.7	0.2
Weighted-average number of shares-diluted	<u>84.6</u>	<u>83.7</u>	<u>83.2</u>

The following table shows stock options, restricted stock units, and performance stock units that are excluded from the computation of diluted earnings per share as the shares would have been anti-dilutive:

	Years Ended December 31,		
	2022	2021	2020
	(Shares in millions)		
Stock options	1.6	2.5	3.2
Restricted stock units	—	—	0.2
Performance stock units	—	—	0.3
Total	<u>1.6</u>	<u>2.5</u>	<u>3.7</u>

17. Fair Value Measurements

The Company measures certain financial and non-financial assets and liabilities at fair value on a recurring basis. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants on the measurement date. Fair value disclosures are reflected in a three-level hierarchy, maximizing the use of observable inputs and minimizing the use of unobservable inputs.

The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability on the measurement date. The three levels are defined as follows:

- Level 1—inputs to the valuation methodology are quoted prices (unadjusted) for an identical asset or liability in an active market.
- Level 2—inputs to the valuation methodology include quoted prices for a similar asset or liability in an active market or model-derived valuations in which all significant inputs are observable for substantially the full term of the asset or liability.
- Level 3—inputs to the valuation methodology are unobservable and significant to the fair value measurement of the asset or liability.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

Cash and Cash Equivalents

Certain assets and liabilities are measured at fair value on a recurring basis. The Company's cash and cash equivalents were measured at fair value at December 31, 2022 and December 31, 2021 based on quoted prices in active markets for identical assets. These inputs are classified as Level 1 within the valuation hierarchy.

Certain Financial Assets and Liabilities not Measured at Fair Value

At December 31, 2022 and 2021, the fair value of the Company's long-term debt was estimated to be \$471.9 million and \$625.1 million, respectively, compared to a carrying amount of \$543.8 million and \$627.0 million, respectively. These fair values were estimated by management based upon estimates of debt pricing provided by financial institutions which are considered Level 2 inputs.

18. Revenue from Contracts with Customers

Cokemaking

Our blast furnace coke sales are largely made pursuant to long-term, take-or-pay agreements. These agreements require us to produce and deliver the contracted volumes of coke and require our customers to purchase such volumes of coke up to a specified tonnage or pay the contract price for any tonnage they elect not to take. As of December 31, 2022, our coke sales agreements have approximately 10.9 million tons of unsatisfied or partially unsatisfied performance obligations, which are expected to be delivered over a weighted average remaining contract term of approximately five years.

Our coke sales prices include an operating cost component, a coal cost component and a return of capital component. Operating costs under three of our coke sales agreements are fixed subject to an annual adjustment based on an inflation index. Under our other four coke sales agreements, operating costs are passed through to the respective customers subject to an annually negotiated budget, in some cases subject to a cap annually adjusted for inflation, and we share any difference in costs from the budgeted amounts with our customers. Our coke sales agreements contain pass-through provisions for coal and coal procurement costs, subject to meeting contractual coal-to-coke yields. To the extent that the actual coal-to-coke yields are less than the contractual standard, we are responsible for the cost of the excess coal used in the cokemaking process. Conversely, to the extent our actual coal-to-coke yields are higher than the contractual standard, we realize gains. The reimbursement of pass-through operating and coal costs from these coke sales agreements are considered to be variable consideration components included in the cokemaking sales price. The return of capital component for each ton of coke sold to the customer is determined at the time the coke sales agreement is signed and is effective for the term of each sales agreement. This component of our coke sales prices is intended to provide an adequate return on invested capital and may differ based on investment levels and other considerations. The actual return on invested capital at any facility is also impacted by favorable or unfavorable performance on pass-through cost items. Revenues are recognized when performance obligations to our customers are satisfied in an amount that reflects the consideration that we expect to receive in exchange for the coke.

We also sell blast furnace coke into the export coke market, utilizing capacity in excess of that reserved for our long-term, take-or-pay agreements. Export coke sales are generally made on a spot basis at the current market price and do not contain the same provisions as our long-term, take-or-pay agreements.

While the revenues in our Domestic Coke segment are primarily tied to blast furnace coke sales made under long-term, take-or-pay agreements, we also produce and sell foundry coke out of our Jewell cokemaking facility. Foundry coke sales are generally made under annual agreements with our customers for an agreed upon price and do not contain take-or-pay volume commitments.

Logistics

In our logistics business, handling and/or mixing services are provided to steel, coke (including some of our domestic cokemaking facilities), electric utility, coal producing and other manufacturing based customers. Materials are transported in numerous ways, including rail, truck, barge or ship. We do not take possession of materials handled, but rather act as intermediaries between our customers and end users, deriving our revenues from services provided on a per ton basis. The handling and mixing services consist primarily of two performance obligations, unloading and loading of materials. Revenues are recognized when the customer receives the benefits of the services provided, in an amount that reflects the consideration that we will receive in exchange for those services. Logistics services provided to our domestic cokemaking facilities are provided under contracts with terms equivalent to those of arm's-length transactions.

Estimated take-or-pay revenue of approximately \$51.4 million from all of our multi-year logistics contracts is expected to be recognized over the next four years for unsatisfied or partially unsatisfied performance obligations as of December 31, 2022.

Energy

Our cokemaking ovens utilize efficient, modern heat recovery technology designed to combust the coal's volatile components liberated during the cokemaking process and use the resulting heat to create steam or electricity for sale. Our Middletown facility and the second phase of our Haverhill facility, or Haverhill II, have cogeneration plants that generate

electricity, which is either sold into the regional power market or to customers pursuant to energy sales agreements. Our Granite City facility and the first phase of our Haverhill facility, or Haverhill I, have steam generation facilities, which produce steam for sale to customers pursuant to steam supply and purchase agreements. The energy provided under these arrangements results in transfer of control over time. Revenues are recognized over time as energy is delivered to our customers, in an amount based on the terms of each arrangement. Energy generated at our remaining facilities is either used internally or provided, at minimal cost, to energy suppliers.

Operating and Licensing Fees

Operating and licensing fees are made pursuant to long-term contracts with ArcelorMittal Brazil, where we operate a Brazilian cokemaking facility. The licensing fees are based upon the level of production required by our customer. Operating fees include the full pass-through of the operating costs of the Brazilian facility as well as a per ton fee based on the level of production required by our customer. Revenues are recognized over time as our customers receive and consume the benefits in an amount that corresponds directly with the value provided to the customer to date.

Disaggregated Sales and Other Operating Revenue

The following table provides disaggregated sales and other operating revenue by product or service, excluding intersegment revenues:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Sales and other operating revenue:			
Cokemaking	\$ 1,791.3	\$ 1,293.6	\$ 1,218.9
Energy	61.5	56.1	43.6
Logistics	76.7	64.3	35.5
Operating and licensing fees	38.0	36.6	31.6
Other	5.0	5.4	3.4
Sales and other operating revenue	<u>\$ 1,972.5</u>	<u>\$ 1,456.0</u>	<u>\$ 1,333.0</u>

Disaggregated sales and other operating revenue by customer is discussed in Note 3.

19. Business Segment Information

The Company reports its business through three segments: Domestic Coke, Brazil Coke and Logistics. The Domestic Coke segment includes the Jewell, Indiana Harbor, Haverhill, Granite City and Middletown cokemaking facilities. Each of these facilities produces coke, and all facilities except Jewell recover waste heat, which is converted to steam or electricity through a similar production process.

The Brazil Coke segment includes the licensing and operating fees payable to us under long-term contracts with ArcelorMittal Brazil, under which we operate a cokemaking facility located in Vitória, Brazil through January, 2028.

Logistics operations are comprised of CMT, KRT, Lake Terminal, which provides services to our Indiana Harbor cokemaking facility, and DRT, which provides services to our Jewell cokemaking facility. Handling and mixing results are presented in the Logistics segment.

Corporate expenses that can be identified with a segment have been included in determining segment results. The remainder is included in Corporate and Other, which also includes activity from our legacy coal mining business.

Segment assets are those assets utilized within a specific segment and exclude taxes.

The following table includes Adjusted EBITDA, as defined below, which is the measure of segment profit or loss reported to the chief operating decision maker for purposes of allocating resources to the segments and assessing their performance:

	Years Ended December 31,		
	2022	2021	2020
(Dollars in millions)			
Sales and other operating revenue:			
Domestic Coke	\$ 1,856.9	\$ 1,354.5	\$ 1,265.4
Brazil Coke	38.0	36.6	31.6
Logistics	77.6	64.9	36.0
Logistics intersegment sales	28.9	27.1	22.1
Elimination of intersegment sales	(28.9)	(27.1)	(22.1)
Total sales and other operating revenue	\$ 1,972.5	\$ 1,456.0	\$ 1,333.0
Adjusted EBITDA:			
Domestic Coke	\$ 263.4	\$ 243.4	\$ 217.0
Brazil Coke	14.5	17.2	13.5
Logistics	49.7	43.5	17.3
Corporate and Other ⁽¹⁾	(29.9)	(28.7)	(41.9)
Total Adjusted EBITDA	\$ 297.7	\$ 275.4	\$ 205.9
Depreciation and amortization expense:			
Domestic Coke	\$ 126.8	\$ 119.0	\$ 119.1
Brazil Coke	0.2	0.4	0.5
Logistics	14.5	13.3	12.8
Corporate and Other	1.0	1.2	1.3
Total depreciation and amortization expense	\$ 142.5	\$ 133.9	\$ 133.7
Capital expenditures:			
Domestic Coke	\$ 70.3	\$ 83.1	\$ 60.0
Brazil Coke	0.1	0.3	0.4
Logistics	4.5	14.7	13.5
Corporate and Other	0.6	0.5	—
Total capital expenditures	\$ 75.5	\$ 98.6	\$ 73.9

(1) Corporate and Other includes foundry related research and development costs of \$3.9 million during 2020.

The following table sets forth the Company's segment assets:

	December 31,	
	2022	2021
(Dollars in millions)		
Segment assets:		
Domestic Coke	\$ 1,422.6	\$ 1,370.6
Brazil Coke	15.7	18.0
Logistics	193.5	202.9
Corporate and Other	22.8	23.9
Total assets	\$ 1,654.6	\$ 1,615.4

The Company evaluates the performance of its segments based on segment Adjusted EBITDA, which is defined as earnings before interest, taxes, depreciation and amortization (“EBITDA”), adjusted for any impairments, restructuring costs, gains or losses on extinguishment of debt, and/or transaction costs (“Adjusted EBITDA”). EBITDA and Adjusted EBITDA do not represent and should not be considered alternatives to net income or operating income under GAAP and may not be comparable to other similarly titled measures in other businesses.

Management believes Adjusted EBITDA is an important measure in assessing operating performance. Adjusted EBITDA provides useful information to investors because it highlights trends in our business that may not otherwise be apparent when relying solely on GAAP measures and because it eliminates items that have less bearing on our operating performance. EBITDA and Adjusted EBITDA are not measures calculated in accordance with GAAP, and they should not be considered a substitute for net income, or any other measure of financial performance presented in accordance with GAAP. Additionally, other companies may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

Reconciliation of Non-GAAP Financial Measures

Below is the reconciliation of Adjusted EBITDA to net income, which is its most directly comparable financial measure calculated and presented in accordance with GAAP:

	Years Ended December 31,		
	2022	2021	2020
	(Dollars in millions)		
Net income attributable to SunCoke Energy, Inc.	\$ 100.7	\$ 43.4	\$ 3.7
Add: Net income attributable to noncontrolling interests	4.2	5.4	5.1
Net income	\$ 104.9	\$ 48.8	\$ 8.8
Add:			
Depreciation and amortization expense	142.5	133.9	133.7
Interest expense, net	32.0	42.5	56.3
Loss (gain) on extinguishment of debt, net	—	31.9	(5.7)
Income tax expense	16.8	18.3	10.3
Restructuring costs ⁽¹⁾	—	—	2.5
Transaction costs ⁽²⁾	1.5	—	—
Adjusted EBITDA	\$ 297.7	\$ 275.4	\$ 205.9
Subtract: Adjusted EBITDA attributable to noncontrolling interests ⁽³⁾	8.4	9.3	9.1
Adjusted EBITDA attributable to SunCoke Energy, Inc.	\$ 289.3	\$ 266.1	\$ 196.8

(1) Charges related to a company-wide restructuring and cost-reduction initiative.

(2) Costs incurred as part of the granulated pig iron project with U.S. Steel.

(3) Reflects noncontrolling interests in Indiana Harbor.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Management’s Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, is responsible for evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)). Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by us in reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure and is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded

that, as of the end of the period covered by this report, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over our financial reporting, as such term is defined under Exchange Act Rule 13a-15(f). Our internal control system was designed to provide reasonable assurance to management regarding the preparation and fair presentation of published financial statements.

In evaluating the effectiveness of our internal control over financial reporting as of December 31, 2022, management used the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control -Integrated Framework* (2013). Based on such evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2022.

Our management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls and procedures or our internal controls over financial reporting will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, misstatements, errors, and instances of fraud, if any, within our company have been or will be prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls also can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls effectiveness to future periods are subject to risks that internal controls may become inadequate as a result of changes in conditions, or through the deterioration of the degree of compliance with policies or procedures.

Our independent registered public accounting firm KPMG LLP, issued an attestation report on our internal control over financial reporting, which is contained in Item 8, "Financial Statements and Supplementary Data."

Changes in Internal Control over Financial Reporting

There was no change in the Company's internal control over financial reporting that occurred during the quarter ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required to be disclosed by this item is incorporated herein by reference to our definitive proxy statement for the 2023 Annual Meeting of the Stockholders (the "2023 Proxy Statement"), which we expect to file with the SEC within 120 days of the end of our fiscal year ended December 31, 2022.

Item 11. Executive Compensation

The information required to be disclosed by this item is incorporated herein by reference to our 2023 Proxy Statement, which we expect to file with the SEC within 120 days of the end of our fiscal year ended December 31, 2022.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required to be disclosed by this item is incorporated herein by reference to our 2023 Proxy Statement, which we expect to file with the SEC within 120 days of the end of our fiscal year ended December 31, 2022.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required to be disclosed by this item is incorporated herein by reference to our 2023 Proxy Statement, which we expect to file with the SEC within 120 days of the end of our fiscal year ended December 31, 2022.

Item 14. Principal Accounting Fees and Services

Our independent registered accounting firm is KPMG LLP, Chicago, IL, Auditor Firm ID: 185.

The information required to be disclosed by this item is incorporated herein by reference to our 2023 Proxy Statement, which we expect to file with the SEC within 120 days of the end of our fiscal year ended December 31, 2022.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as a part of this report:

1 Consolidated Financial Statements:

The consolidated financial statements are set forth under Item 8 of this report.

2 Financial Statements Schedules:

Financial statement schedules are omitted because required information is shown elsewhere in this report, is not necessary or is not applicable.

3 Exhibits:

- 2.1 Agreement and Plan of Merger dated as of February 4, 2019 by and among SunCoke Energy, Inc., SC Energy Acquisition LLC, SunCoke Energy Partners, L.P., and SunCoke Energy Partners GP LLC. (incorporated by reference herein to Exhibit 2.1 to the Company's Current Report on Form 8-K, filed on February 5, 2019, File No. 001-35243)
- 3.1 Amended and Restated Certificate of Incorporation of the Company (incorporated by reference herein to Exhibit 3.1 to the Company's Amendment No. 4 to Registration Statement on Form S-1 filed on July 6, 2011, File No. 333-173022)
- 3.2* Amended and Restated Bylaws of SunCoke Energy, Inc., effective as of February 23, 2023 (filed herewith)
- 4.1 Form of Common Stock Certificate of the Registrant (incorporated by reference herein to Exhibit 4.1 to the Company's Amendment No. 2 to Registration Statement on Form S-1, filed on June 3, 2011, File No. 333-173022)
- 4.2 Description of the Registrant's Securities registered pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference herein to Exhibit 4.2 to the Company's Annual Report on Form 10-K, filed on February 25, 2021, File No. 001-35243)
- 4.3 Indenture, dated June 22, 2021, by and among SunCoke Energy, Inc., the subsidiary guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as trustee and as notes collateral agent (incorporated by reference herein to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed on June 22, 2021, File No. 001-35243)
- 4.3.1 Form of 4.875% Senior Secured Notes due 2029 (incorporated by reference herein to Exhibit 4.2 to the Company's Current Report on Form 8-K, filed on June 22, 2021, File No. 001-35243)
- 10.1* Third Amended and Restated Credit Agreement, dated February 16, 2023 by and among SunCoke Energy, Inc., and certain subsidiaries of SunCoke Energy, Inc., as joint and several borrowers, the several lenders party thereto from time to time and Bank of America, N.A., as administrative agent (filed herewith)
- 10.2^ SunCoke Energy, Inc. Annual Incentive Plan, amended and restated as of December 8, 2021 (incorporated by reference herein to Exhibit 10.4 to the Company's Annual Report on Form 10-K, filed on February 24, 2022, File No. 001-35243)
- 10.3^ SunCoke Energy, Inc. Omnibus Long-Term Incentive Plan, effective May 12, 2022 (incorporated by reference herein to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed on August 2, 2022, File No. 001-35243)
- 10.3.1^* Form of Stock Settled Restricted Share Unit Agreement under the SunCoke Energy, Inc. Omnibus Long-Term Incentive Plan by and between SunCoke Energy, Inc. and employees of SunCoke Energy, Inc. or one of its Affiliates (filed herewith)
- 10.3.2^* Form of Cash Settled Restricted Share Unit Agreement under the SunCoke Energy, Inc. Omnibus Long-Term Incentive Plan by and between SunCoke Energy, Inc. and employees of SunCoke Energy, Inc. or one of its Affiliates (filed herewith)
- 10.3.3^* Form of Performance Share Unit Agreement under the SunCoke Energy, Inc. Omnibus Long-Term Incentive Plan by and between SunCoke Energy, Inc. and employees of SunCoke Energy, Inc. or one of its Affiliates (filed herewith)

- 10.3.4^* Form of Long-Term Cash Incentive Award Agreement under the SunCoke Energy, Inc. Omnibus Long-Term Incentive Plan by and between SunCoke Energy, Inc. and employees of SunCoke Energy, Inc. or one of its Affiliates (filed herewith)
- 10.4^ SunCoke Energy, Inc. Long-Term Performance Enhancement Plan, amended and restated effective as of February 14, 2018 (incorporated by reference herein to Exhibit 10.5 to the Company's Annual Report on Form 10-K, filed on February 24, 2022, File No. 001-35243)
- 10.4.1^ Form of Stock Option Agreement under the SunCoke Energy, Inc. Long-Term Performance Enhancement Plan by and between SunCoke Energy, Inc. and employees of SunCoke Energy, Inc. or one of its Affiliates (incorporated by reference herein to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016 filed on April 27, 2016, File No. 001-35243)
- 10.4.2^ Amendment to Stock Option Agreements under the SunCoke Energy, Inc. Long-Term Performance Enhancement Plan, entered into as of July 18, 2013, applicable to all Stock Option Awards outstanding as of July 18, 2012 (incorporated by reference herein to Exhibit 10.23 to the Company's Annual Report on Form 10-K for the year ended December 31, 2012, filed on February 22, 2013, File No. 001-35243)
- 10.4.3^ Form of Performance Stock Option Agreement under the SunCoke Energy, Inc. Long-Term Performance Enhancement Plan by and between SunCoke Energy, Inc. and employees of SunCoke Energy, Inc. or one of its Affiliates (incorporated by reference herein to Exhibit 10.5.3 to the Company's Annual Report on Form 10-K, filed on February 16, 2017, File No. 001-35243)
- 10.5^ SunCoke Energy, Inc. Long-Term Cash Incentive Plan (effective as of January 1, 2016) (incorporated by reference herein to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016 filed on April 27, 2016, File No. 001-35243)
- 10.6^ SunCoke Energy, Inc. Savings Restoration Plan effective January 1, 2012 (incorporated by reference herein to Exhibit 10.1 to the Company's Form 8-K filed on December 9, 2011, File No. 001-35243)
- 10.6.1^ Amendment Number One to the SunCoke Energy, Inc. Savings Restoration Plan, effective as of January 1, 2012 (incorporated by reference herein to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2012 filed on May 2, 2012, File No. 001-35243)
- 10.6.2^ Second Amendment to the SunCoke Energy, Inc. Savings Restoration Plan, effective as of June 1, 2015 (incorporated by reference herein to Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016 filed on April 27, 2016, File No. 001-35243)
- 10.6.3^ Third Amendment to the SunCoke Energy, Inc. Savings Restoration Plan, effective as of January 1, 2016 (incorporated by reference herein to Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016 filed on April 27, 2016, File No. 001-35243)
- 10.6.4^ Fourth Amendment to the SunCoke Energy, Inc. Savings Restoration Plan, effective as of January 1, 2017 incorporated by reference herein to Exhibit 10.7.4 to the Company's Annual Report on Form 10-K, filed February 25, 2021. File No. 001-35243)
- 10.7^ SunCoke Energy, Inc. Special Executive Severance Plan, amended and restated effective as of December 8, 2021 (incorporated by reference herein to Exhibit 10.8 to the Company's Annual Report on Form 10-K, filed on February 24, 2022, File No. 001-35243)
- 10.8^ SunCoke Energy, Inc. Executive Involuntary Severance Plan, amended and restated effective as of December 8, 2021 (incorporated by reference herein to Exhibit 10.9 to the Company's Annual Report on Form 10-K, filed on February 24, 2022, File No. 001-35243)
- 10.9^ SunCoke Energy, Inc. Amended and Restated Directors' Deferred Compensation Plan, effective as of February 23, 2022 (incorporated by reference herein to Exhibit 10.11 to the Company's Annual Report on Form 10-K, filed on February 24, 2022, File No. 001-35243)
- 10.10^ Form of Indemnification Agreement, individually entered into between SunCoke Energy, Inc. and each director of the Company (incorporated by reference herein to Exhibit 10.16 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2011 filed on November 2, 2011, File No. 001-35243)

- 10.11† Amended and Restated Coke Supply Agreement, dated as of October 28, 2003, by and between Jewell Coke Company, L.P., ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.18 to the Company's Amendment No. 4 to Registration Statement on Form S-1 filed on July 6, 2011, File No. 333-173022)
- 10.11.1† Amendment No. 1 to Amended and Restated Coke Supply Agreement, dated as of December 5, 2003, by and between Jewell Coke Company, L.P., ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.19 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.11.2† Letter Agreement, dated as of May 7, 2008, between ArcelorMittal USA Inc., Haverhill North Coke Company, Jewell Coke Company, L.P. and ISG Sparrows Point LLC, serving as (1) Amendment No. 2 to the Amended and Restated Coke Supply Agreement, by and between Jewell Coke Company, L.P., ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) and (2) Amendment No. 2 to the Coke Purchase Agreement, by and between Haverhill North Coke Company, ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.20 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.11.3† Amendment No. 3 to Amended and Restated Coke Supply Agreement, dated as of January 26, 2011, by and between Jewell Coke Company, L.P., ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.21 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.11.4† Amendment No. 7 to Coke Supply Agreement, dated July 30, 2020, by and among Jewell Coke Company, L.P., ArcelorMittal Cleveland LLC (f/k/a ArcelorMittal Cleveland Inc.) and ArcelorMittal USA LLC (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020, filed on November 6, 2020, File No. 001-35243)
- 10.12† Coke Purchase Agreement, dated as of October 28, 2003, by and between Haverhill North Coke Company, ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.22 to the Company's Amendment No. 4 to Registration Statement on Form S-1 filed on July 6, 2011, File No. 333-173022)
- 10.12.1† Amendment No. 1 to Coke Purchase Agreement, dated as of December 5, 2003, by and between Haverhill North Coke Company, ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.23 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.12.2† Amendment No. 3 to Coke Purchase Agreement, dated as of May 8, 2008, by and between Haverhill North Coke Company, ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.25 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.12.3† Amendment No. 4 to Coke Purchase Agreement, dated as of January 26, 2011, by and between Haverhill North Coke Company, ArcelorMittal Cleveland Inc. (f/k/a ISG Cleveland Inc.) and ArcelorMittal Indiana Harbor (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.26 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.12.4 Amendment No. 8 to Coke Purchase Agreement, dated July 30, 2020, by and among Haverhill Coke Company (f/k/a Haverhill North Coke Company), ArcelorMittal Cleveland LLC (f/k/a ArcelorMittal Cleveland Inc.) and ArcelorMittal USA LLC (f/k/a ISG Indiana Harbor Inc.) (incorporated by reference herein to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020, filed on November 6, 2020, File No. 001-35243)
- 10.13† Coke Purchase Agreement, dated as of August 31, 2009, by and between Haverhill North Coke Company and AK Steel Corporation (incorporated by reference herein to Exhibit 10.27 to the Company's Amendment No. 5 to Registration Statement on Form S-1 filed on July 18, 2011, File No. 333-173022)

- 10.13.1† Second Amendment to Coke Purchase Agreement, dated July 7, 2020, between AK Steel Corporation and Haverhill Coke Company LLC (incorporated by reference herein to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2020, filed on August 3, 2020, File No. 001-35243)
- 10.13.2 Third Amendment to Coke Purchase Agreement, dated October 8, 2020, between AK Steel Corporation and Haverhill Coke Company LLC (incorporated by reference herein to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020, filed on November 6, 2020, File No. 001-35243)
- 10.14† Amended and Restated Coke Purchase Agreement, dated as of February 19, 1998, by and between Indiana Harbor Coke Company, L.P. and ArcelorMittal USA Inc. (f/k/a Inland Steel Company) (incorporated by reference herein to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2013 filed on October 30, 2013, File No. 001-35243)
- 10.14.1† Amendment No. 1 to Amended and Restated Coke Purchase Agreement, dated as of November 22, 2000, by and between Indiana Harbor Coke Company, L.P., a subsidiary of the Company, and ArcelorMittal USA Inc. (f/k/a Inland Steel Company) (incorporated by reference herein to Exhibit 10.29 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.14.2† Amendment No. 2 to Amended and Restated Coke Purchase Agreement, dated as of March 31, 2001, by and between Indiana Harbor Coke Company, L.P. and ArcelorMittal USA Inc. (f/k/a Inland Steel Company) (incorporated by reference herein to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2013 filed on October 30, 2013, File No. 001-35243)
- 10.14.3† Supplement to Amended and Restated Coke Purchase Agreement, dated as of February 3, 2011, by and between Indiana Harbor Coke Company, L.P. and ArcelorMittal USA Inc. (f/k/a Inland Steel Company) (incorporated by reference herein to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2013 filed on October 30, 2013, File No. 001-35243)
- 10.14.4† Extension Agreement, dated as of September 5, 2013, by and between Indiana Harbor Coke Company, L.P. and ArcelorMittal USA Inc. (incorporated by reference herein to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2013 filed on October 30, 2013, File No. 001-35243)
- 10.14.5† Supplement to the ArcelorMittal USA LLC and Indiana Harbor Coke Company, L.P. Coke Purchase Agreement Term Sheet and the ArcelorMittal Cleveland LLC, ArcelorMittal Indiana Harbor LLC and Jewell Coke Company, L.P. Coke Supply Agreement, dated as of September 10, 2014 (incorporated by reference herein to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2014 filed on October 28, 2014, File No. 001-35243)
- 10.15† Coke Sale and Feed Water Processing Agreement, dated as of February 28, 2008, by and between Gateway Energy & Coke Company, LLC and U.S. Steel Corporation (incorporated by reference herein to Exhibit 10.32 to the Company's Amendment No. 7 to Registration Statement on Form S-1 filed on July 20, 2011, File No. 333-173022)
- 10.15.1† Amendment No. 1 to Coke Sale and Feed Water Processing Agreement, dated as of November 1, 2010, by and between Gateway Energy & Coke Company, LLC and U.S. Steel Corporation (incorporated by reference herein to Exhibit 10.33 to the Company's Amendment No. 2 to Registration Statement on Form S-1 filed on June 3, 2011, File No. 333-173022)
- 10.15.2 Amendment No. 2 to Coke Sale and Feed Water Processing Agreement, dated as of July 6, 2011, by and between Gateway Energy & Coke Company, LLC and U.S. Steel Corporation (incorporated by reference to Exhibit 10.23.2 to the Company's Annual Report on Form 10-K for the year ended December 31, 2014 filed on February 24, 2015, File No. 001-35243)
- 10.15.3† Amendment No. 3 to Coke Sale and Feed Water Processing Agreement, dated as of January 12, 2015, by and among Gateway Energy & Coke Company, LLC, Gateway Cogeneration Company LLC and U.S. Steel Corporation (incorporated by reference to Exhibit 10.23.3 to the Company's Annual Report on Form 10-K filed on February 24, 2015, File No. 001-35243)
- 10.16† Amended and Restated Coke Purchase Agreement, dated as of September 1, 2009, by and between Middletown Coke Company, LLC, a subsidiary of the Company and AK Steel Corporation (incorporated by reference herein to Exhibit 10.34 to the Company's Amendment No. 5 to Registration Statement on Form S-1 filed on July 18, 2011, File No. 333-173022)
- 21.1* Subsidiaries of the Registrant (filed herewith)

- 22.1* List of Issuers and Guarantor Subsidiaries (filed herewith)
- 23.1* Consent of KPMG LLP (filed herewith)
- 31.1* Chief Executive Officer Certification Pursuant to Exchange Act Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
- 31.2* Chief Financial Officer Certification Pursuant to Exchange Act Rule 13a-14(a) or Rule 15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
- 32.1* Chief Executive Officer Certification Pursuant to Exchange Act Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the U.S. Code, as Adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith)
- 32.2* Chief Financial Officer Certification Pursuant to Exchange Act Rule 13a-14(b) or Rule 15d-14(b) and Section 1350 of Chapter 63 of Title 18 of the U.S. Code, as Adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith)
- 95.1* Mine Safety Disclosure (filed herewith)
- 101* The following financial statements from SunCoke Energy, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2022, filed with the Securities and Exchange Commission on February 24, 2023, formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) the Consolidated Statements of Income, (ii) the Consolidated Statements of Comprehensive Income (Loss), (iii) the Consolidated Balance Sheets, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Equity, and (vi) the Notes to Consolidated Financial Statements.
- 104* The cover page from SunCoke Energy, Inc's Annual Report on Form 10-K for the year ended December 31, 2022 formatted in iXBRL (Inline eXtensible Business Reporting Language) and contained in Exhibit 101.
- * Provided herewith.
- ^ Management contract or compensatory plan or arrangement.
- † Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been separately filed with the Securities and Exchange Commission.

Item 16. Form 10-K Summary

None.



MIX
Paper from
responsible sources
FSC® C132107