GRAFTECH INTERNATIONAL LTD
Form 10-K
February 26, 2013
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)
x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
for the fiscal year ended December 31, 2012
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: 1-13888

GRAFTECH INTERNATIONAL LTD.
(Exact name of registrant as specified in its charter)

Delaware	27-2496053
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
12900 Snow Road Parma, Ohio	44130
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (216) 676-2000

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

Title of each class	Name of each exchange on which registered
Common stock, par value $.01 per share	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 x No ¨
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x
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 x No ¨
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No ¨
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer", "non-accelerated filer" and

"smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer x Accelerated Filer ¨ Non-Accelerated Filer ¨ Smaller reporting company ¨

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2).

Yes ¨ No x

The aggregate market value of our outstanding common stock held by non-affiliates, computed by reference to the closing price of our common stock on June 29, 2012, was approximately $1,231 million. On January 31, 2013, 135,001,657 shares of our common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required under Part III is incorporated by reference from the GrafTech International Ltd. Proxy Statement for the Annual Meeting of Stockholders to be held on May 14, 2013, which will be filed on or about April 1, 2013.

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PART I

Preliminary Notes

Important Terms. We use the following terms to identify various matters. These terms help to simplify the presentation of information in this Report.
"Common stock" means GTI common stock, par value $.01 per share.
"ConocoPhillips" refers to both ConocoPhillips and Phillips 66, as the case may be, depending upon the time period to which the reference relates. We are parties to multi-year contracts with ConocoPhillips for the supply of needle coke which run through December 31, 2013. In 2012 ConocoPhillips spun off certain refining and chemicals assets into a new separate entity named Phillips 66, to which our agreements with ConocoPhilips have been assigned. We do not believe that this separation will have an adverse effect on these needle coke supply agreements.
"Credit Agreement" refers to the credit agreement providing for our senior secured credit facilities, dated as of October 7, 2011, as amended and further restated on April 20, 2012, pursuant to the First Amendment, dated March 26, 2012, and as amended as of October 29, 2012, or as further amended and/or restated at the relevant time. "Revolving Facility" refers to the revolving credit facility provided under the Credit Agreement, at the relevant time.
"GrafTech Finance" refers to GrafTech Finance Inc. only. GrafTech Finance is an indirect wholly-owned, special purpose finance subsidiary of GTI and the borrower under the Revolving Facility.
"GrafTech Global" refers to GrafTech Global Enterprises Inc. only. GrafTech Global is an indirect wholly-owned subsidiary of GTI and the direct or indirect holding company for all of our operating subsidiaries. GrafTech Global is a guarantor of the Revolving Facility.
"GTI" refers to GrafTech International Ltd. only. GTI is our public parent company and the issuer of our publicly traded common stock registered under the Exchange Act and listed on the NYSE. GTI is a guarantor of the Revolving Facility.
"MTM Adjustment" refers to our accounting policy regarding pension and other postretirement benefits plans ("OPEB") whereby we immediately recognize the change in the fair value of plan assets and net actuarial gains and losses annually in the fourth quarter of each year (referred to as "mark-to-market").
"Redeemed Senior Notes" means our 10.25% senior notes due 2012 issued under an indenture dated February 15, 2002. On September 28, 2009, GTI redeemed all of the Redeemed Senior Notes which remained outstanding under that indenture.
"Senior Notes" means our 6.375% senior notes due 2020 issued under an Indenture dated November 20, 2012 (as supplemented, the "Senior Note Indenture").
"Senior Subordinated Notes" means our senior subordinated promissory notes issued on November 30, 2010, in connection with the Seadrift Coke L.P. ("Seadrift") and C/G Electrodes LLC ("C/G") acquisitions, for an aggregate total face amount of $200 million. These senior subordinated notes are non-interest bearing and will mature in 2015. Because the Senior Subordinated Notes are non-interest bearing, we were required to record them at their present value (determined using an interest rate of 7.00%).
"Subsidiaries" refers to those companies that, at the relevant time, are or were majority owned or wholly-owned directly or indirectly by GTI or its predecessors to the extent that those predecessors' activities related to the graphite and carbon business.
"We," "us" or "our" refers to GTI and its subsidiaries collectively or, if the context so requires, GTI, GrafTech Global, GrafTech Finance or GrafTech International Holdings Inc., individually.
Presentation of Financial, Market and Legal Data. References to cost in the context of our low cost advantages and strategies do not include the impact of special charges, expenses or credits, such as those related to investigations, lawsuits, claims, restructurings or impairments, or the impact of changes in accounting principles.
Unless otherwise noted, when we refer to "dollars", we mean U.S. dollars. Unless otherwise noted, all dollars are presented in thousands.
References to spot prices for graphite electrodes mean prices under individual purchase orders (not part of an annual or other extended purchase arrangement) for near term delivery for standard size graphite electrodes used

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in large electric arc steel melting furnaces (sometimes called “melters” or “melter applications”) as distinct from, for example, a ladle furnace or a furnace producing non-ferrous metals.

Neither any statement made in this Report nor any charge taken by us relating to any legal proceedings constitutes an admission as to any wrongdoing.

Unless otherwise noted, market and market share data in this Report are our own estimates. Market data relating to the steel, electronics, semiconductor, solar, thermal management, transportation, petrochemical and other metals industries, our general expectations concerning such industries and our market position and market share within such industries, both domestically and internationally, are derived from trade publications relating to those industries and other industry sources as well as assumptions made by us, based on such data and our knowledge of such industries. Market and market share data relating to the graphite and carbon industry as well as information relating to our competitors, our general expectations concerning such industry and our market position and market share within such industry, both domestically and internationally, are derived from the sources described above and public filings, press releases and other public documents of our competitors as well as assumptions made by us, based on such data and our knowledge of such industry. Such data are used to provide a gauge of our competitiveness against our competitors and are intended to describe things such as customer or potential customer bases, industries, or subsets of the industries in which we compete and intermediate or end use applications of the product or technology involved. Similarly, product descriptions are used to help understand how we develop, produce, source, manage, market, sell, or account for products. Unless otherwise noted, references to “market share” are based on sales volumes for the relevant year market data and product descriptions are not intended to define markets or products from an antitrust, trade regulation, trade remedy, or other regulatory purpose. Our estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under “Risk Factors-Risks Relating to Us” and “Risk Factors-Forward Looking Statements” in this Report. We cannot guarantee the accuracy or completeness of this market and market share data and have not independently verified it. None of the sources mentioned above has consented to the disclosure or use of data in this Report.

The GRAFTECH logo, GRAFCELL®, GRAFOAM®, GRAFIHX™, eGraf® and HOTPRESSED™ are our trademarks and trade names used in this report. This Report also contains trademarks and trade names belonging to other parties.

We make available, free of charge, on or through our web site, copies of our proxy statements, our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file them with, or furnish them to, the U.S. Securities and Exchange Commission (“SEC”). We maintain our website at http://www.graftech.com. The information contained on our web site is not part of this Report. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers that file electronically. Please see http://www.sec.gov for more information.

We have a code of ethics (which we call our Code of Conduct and Ethics) that applies to our principal executive officer, principal financial officer, principal accounting officers and controller, and persons performing similar functions, as well as our other employees, and which is intended to comply, at a minimum, with the listing standards of the New York Stock Exchange (“NYSE”) as well as the Sarbanes-Oxley Act of 2002 and the SEC rules adopted thereunder. A copy of our Code of Conduct and Ethics is available on our web site at http://www.graftech.com/getdoc/fd25921b-07b1-429f-86fa-397f0d0cb30d/Code-of-Conduct-and-Ethics.aspx. We intend to report timely on our website any disclosures concerning amendments or waivers of our Code of Conduct and Ethics that would otherwise require the filing of a Form 8-K with the SEC.

We also have corporate governance guidelines (which we call the Charter of the Board of Directors) which is available on our website at http://www.graftech.com/getdoc/6b8a3b4d-967c-4bdd-ab04-ea0011de0c91/GRAFTECH-INTERNATIONAL-LTD-Corp-Gov-Guide.aspx as required by the NYSE.

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Item 1. Business

Introduction

Our vision is to enable customer leadership, better and faster than our competition, through the creation, innovation and manufacture of graphite and carbon material science-based solutions. We have over 125 years of experience in the research and development of graphite and carbon-based solutions and our intellectual property portfolio is extensive. Our business was founded in 1886 by the National Carbon Company.

We are a leading manufacturer of a broad range of high quality graphite electrodes, products essential to the production of electric arc furnace ("EAF") steel and various other ferrous and nonferrous metals. We also produce needle coke products, which are the primary raw material needed in the manufacture of graphite electrodes. We also manufacture carbon, graphite, and semi-graphite refractory products, which protect the walls of blast furnaces and submerged arc furnaces. We are one of the largest manufacturers of high quality natural graphite products, enabling thermal management solutions for the electronics industry and fuel cell solutions for the transportation and power generation industries. We are one of the largest manufacturers and providers of advanced graphite and carbon materials used in the transportation, solar and oil and gas exploration industries.

We currently manufacture our products in 20 manufacturing facilities strategically located on four continents. We believe our Industrial Materials network has the largest manufacturing capacity and the lowest manufacturing cost structure of all of our major competitors and delivers the highest-level quality products. We currently have the operating capability, depending on product mix, to manufacture approximately 255,000 metric tons of graphite electrodes. We believe that our global manufacturing network provides us with competitive advantages in product quality, proximity to customers, timely and reliable product delivery, and product costs. Given our global network, we are well positioned to serve the growing number of consolidated, global, multi-plant steel customers as well as certain smaller, regional customers and segments.

We have over 125 years of experience in the research and development of graphite and carbon based solutions and our intellectual property portfolio is extensive. We hold approximately 733 issued and pending patent applications and have been the recipient of seven R&D 100 Awards in the past 10 years. Our technological capabilities include developing products with superior thermal, electrical and physical characteristics that provide a differentiated advantage.

Products. We have seven major product categories: graphite electrodes, refractory products, needle coke products, advanced graphite materials, advanced composite materials, advanced electronics technologies (formerly referred to as natural graphite products), and advanced materials.

Reportable Segments. Our businesses are reported in the following reportable segments: Industrial Materials, which include graphite electrodes, refractory products and needle coke products; and Engineered Solutions, which includes advanced electronics technologies, advanced graphite materials, advanced composite materials, and advanced materials.

Industrial Materials. Our Industrial Materials segment manufactures and delivers high quality graphite electrodes, refractory products and needle coke products.

We are a leading manufacturer of the a broad range of high quality graphite electrodes, refractory products, and needle coke products. Electrodes are key components of the conductive power systems used to produce steel and other non-ferrous metals. Approximately 70% of our graphite electrodes sold is consumed in the EAF steel melting process, the steel making technology used by all "mini-mills," typically at a rate of one graphite electrode every eight to ten operating hours. We believe that mini-mills constitute the higher long-term growth sector of the steel industry and that there is currently no commercially viable substitute for graphite electrodes in EAF steel making. The remaining approximately 30% of our graphite electrodes sold is primarily used in various other ferrous and non-ferrous melting applications, including steel refining (ladle furnace operations for both EAF and basic oxygen furnace steel production), fused materials, chemical processing, and alloy metals.

Additionally, we are a producer of petroleum needle coke. Needle coke is the key raw material in the manufacture of the graphite electrodes used in melting operations. Petroleum needle coke, a crystalline form of carbon derived from

decant oil, is used in the production of graphite electrodes. As a result of our acquisition of Seadrift on November 30, 2010, our graphite electrode production is vertically integrated. We believe that Seadrift is the world's second largest petroleum-based needle coke producer and assuming normal annual maintenance, a product mix of only normal premium petroleum needle coke production and related by-products, the annual capacity is approximately 140,000 metric tons. Seadrift currently provides a substantial portion of our needle coke requirements.

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GrafTech is also a leading global supplier of carbon, semi-graphitic and graphite refractory hearth linings for blast and submerged arc furnaces used to produce iron and ferro alloys. Carbon and graphite refractory products are used to protect the walls and bottoms of these furnaces due to their ability to withstand extreme conditions, thermally and mechanically. Among the major refractory product suppliers, GrafTech has one of the most complete offerings, including a full range of brick, block, ramming paste, cement and grout products.

Engineered Solutions. The Engineered Solutions segment includes advanced electronics technologies, advanced graphite materials, advanced composite materials and advanced materials. Advanced electronics technology products consist of electronic thermal management solutions, fuel cell components, and sealing materials. Advanced graphite materials are highly engineered synthetic graphite products used in many areas due to their unique properties and the ability to tailor them to specific solutions. These products are used in transportation, alternative energy, metallurgical, chemical, oil and gas exploration and various other industries. Advanced composite materials are highly engineered carbon products that are woven into various shapes to primarily support the aerospace and defense industries. Advanced materials use carbon and graphite powders as components or additives in a variety of industries, including metallurgical processing, battery and fuel cell components, and polymer additives.

Industrial Materials Segment

Our Industrial Materials segment, which had net sales of $833.9 million in 2010, $1,132 million in 2011 and $1,026 million in 2012, manufactures and delivers high quality graphite electrodes, refractory products and needle coke products, as well as provides customer technical services. Industrial Materials sales represented approximately 83%, 86% and 82% of consolidated net sales for 2010, 2011, and 2012, respectively. We estimate that the worldwide demand for our industrial materials products was approximately $6.8 billion in 2011 and approximately $7.0 billion in 2012. Customers for these products are located in all major geographic regions.

Graphite Electrode Products. Graphite electrodes are consumed primarily in EAF steel production, the steel making technology used by all “mini-mills.” Graphite electrodes are also consumed in the refining of steel in ladle furnaces and in other smelting processes such as production of titanium dioxide.

Electrodes act as conductors of electricity in the furnace, generating sufficient heat to melt scrap metal, iron ore or other raw materials used to produce steel or other metals. The electrodes are consumed in the course of that production.

Electric arc furnaces operate using either alternating electric current or direct electric current. The vast majority of electric arc furnaces use alternating current. Each of these alternating current furnaces typically uses nine electrodes (in three columns of three electrodes each) at one time. The other electric arc furnaces, which use direct current, typically use one column of three electrodes. The size of the electrodes varies depending on the size of the furnace, the size of the furnace’s electric transformer and the planned productivity of the furnace. In a typical furnace using alternating current and operating at a typical number of production cycles per day, one of the nine electrodes is fully consumed (requiring the addition of a new electrode), on average, every eight to ten operating hours. The actual rate of consumption and addition of electrodes for a particular furnace depends primarily on the efficiency and productivity of the furnace. Therefore, demand for graphite electrodes is directly related to the amount and efficiency of electric arc furnace steel production.

Electric arc furnace steel production requires significant heat (as high as 5,000° F) to melt the raw materials in the furnace, primarily scrap metal. Heat is generated as electricity (as much as 150,000 amps) passes through the electrodes and creates an electric arc between the electrodes and the raw materials.

Graphite electrodes are currently the only known commercially available products that have the high levels of electrical conductivity and the capability of sustaining the high levels of heat generated in an electric arc furnace producing steel. Therefore, graphite electrodes are essential to the production of steel in electric arc furnaces. We believe there is currently no commercially viable substitute for graphite electrodes in electric arc furnace steel making. We estimate that, on average, the cost of graphite electrodes represents about 2% of the cost of producing steel in a typical electric arc furnace.

Electric arc furnace steel production was estimated to be approximately 442 million metric tons in 2012, representing approximately 29% of the world’s steel production. The World Steel Association's utilization rate for the total steel market in 2012 was 78% in 2012 compared to 80% in 2011 and EAF utilization rates typically follow the trends of the overall steel industry.

Relationship Between Graphite Electrode Demand and EAF Steel Production. The improved efficiency of electric arc furnaces has resulted in a decrease in the average rate of consumption of graphite electrodes per metric

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ton of steel produced in electric arc furnaces (called “specific consumption”). We estimate that the average EAF melter specific consumption is approximately 1.7 kilograms of graphite electrodes per metric ton produced.

Over the long term, specific consumption will continue to decrease at a gradual pace, as the EAF steel makers investment cost (relative to the benefits) increases to achieve further efficiencies in specific consumption. Another contributing factor is the ongoing electrode quality improvements of graphite electrode manufacturers.

We further believe that the rate of decline in the future will be impacted by the addition of modern EAF steel making capacity which tends to have lower specific consumption than the average. To the extent that this new capacity replaces old capacity, it has the effect of accelerating the reduction in industry wide specific consumption due to the efficiency of new electric arc furnaces relative to the old. However, to the extent that this new capacity increases industry wide EAF steel production capacity and that capacity is utilized, it creates additional demand for graphite electrodes.

Increases in EAF steel production, offset by declines in specific consumption, resulted in corresponding changes in demand for graphite electrodes. Due to expected low growth of EAF production, we are projecting similar growth for graphite electrode demand in 2013.

Over the long term, graphite electrode demand is estimated to grow at an average annual net growth rate of approximately 2%, based on the anticipated growth of EAF steel production (average historical growth rate of 3%), partially offset by the decline in future specific consumption.

Production Capacity. We believe that the worldwide total graphite electrode manufacturing capacity was approximately 1.75 million metric tons for 2010, 1.79 million metric tons 2011 and approximately 1.89 million metric tons for 2012. We believe that the graphite electrode industry manufacturing capacity utilization rate worldwide was approximately 83% for 2011 and 73% for 2012. We routinely update our estimates as more information, which can vary, becomes available, as stated capacities in some cases are not effective capacity adjusted for production yields.

We have the capability, depending on product demand and mix, to manufacture approximately 255,000 metric tons of graphite electrodes annually from our existing assets. As a result of our acquisition of Seadrift in November 2010, our graphite electrode production is vertically integrated. Seadrift currently provides a substantial portion of our needle coke requirements.

Refractory Products. We manufacture carbon and semi-graphite, HotPressed™ refractory bricks, as well as other graphite and carbon refractory blocks, all of which are used primarily for their durability in very demanding high temperature melting environments. Common applications are in blast furnaces and submerged arc furnaces for ferroalloy production include cooling courses in the hearth