

RTI INTERNATIONAL METALS INC

Form 424B3

September 08, 2009

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The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

**Filed Pursuant to Rule 424(b)(3)
Registration No. 333-161304**

SUBJECT TO COMPLETION, DATED SEPTEMBER 8, 2009

PRELIMINARY PROSPECTUS SUPPLEMENT

(To Prospectus Dated September 8, 2009)

**5,000,000 Shares
RTI International Metals, Inc.
Common Stock
\$ per share**

We are selling 5,000,000 shares of our Common Stock. We have granted the underwriters an option to purchase up to 750,000 additional shares of Common Stock to cover over-allotments.

Our Common Stock is listed on the New York Stock Exchange under the symbol RTI. The last reported sale price of our Common Stock on the New York Stock Exchange on September 4, 2009 was \$20.05 per share.

Investing in our Common Stock involves risks. See Risk Factors beginning on page S-7.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public Offering Price	\$	\$
Underwriting Discount	\$	\$
Proceeds to RTI International Metals, Inc. (before expenses)	\$	\$

The underwriters expect to deliver the shares of Common Stock to purchasers on or about September , 2009 through the book-entry facilities of The Depository Trust Company.

Joint Book-Running Managers

Citi

FBR Capital Markets

Co-Lead Managers

KeyBanc Capital Markets

PNC Capital Markets LLC

September , 2009

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FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements. This prospectus supplement and the accompanying prospectus (including the documents incorporated herein and therein by reference), may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). Additionally, we or our representatives may, from time to time, make other written or verbal forward-looking statements. In this prospectus supplement and the accompanying prospectus (including the documents incorporated by reference herein and therein), we discuss expectations regarding our business, financial condition and results of operations. Without limiting the foregoing, words or phrases such as will likely result, are expected to, will continue, is anticipated, we believe, estimate, project (including the negative or variations thereof) or similar terminology, generally identify forward-looking statements. Forward-looking statements may also represent challenging goals for us. As such, they are based on current expectations and are subject to certain risks and uncertainties. We caution that undue reliance should not be placed on such forward-looking statements which speak only as of the date made. In order to comply with the terms of the safe harbor, we identify for investors important risk factors which could affect our financial performance and could cause actual results for future periods to differ materially from the anticipated results or other expectations expressed in the forward-looking statements.

Investing in our securities involves risk. Before you invest in our securities, you should carefully consider some of the factors which could cause our results to differ from those expressed in any forward-looking statement, which are set forth under the caption Risk Factors below, and in the accompanying prospectus, and subsequent Form 10-Q and Form 10-K filings made with the SEC, each of which is incorporated by reference herein, and include:

the future availability and prices of raw materials,

competition in the titanium industry,

current delay in construction of, and potential further delay, idling, or abandonment of our sponge plant project,

demand for our products,

the historic cyclicity of the titanium and commercial aerospace industries,

changes in defense spending and cancellation or changes in defense programs or initiatives,

the success of new market development,

the ability to obtain access to financial markets and to maintain current covenant requirements,

long-term supply agreements,

the impact of titanium inventory overhang throughout our supply chain,

the impact of Boeing 787 production delays,

the impact if another party to a long-term contract fails to successfully manage its future development and production schedule,

legislative challenges to the Specialty Metals Clause,

labor matters,

global economic activities,

the outcome of the U.S. Customs investigation,

the successful completion of our expansion projects,

our ability to execute on new business awards,

our order backlog and the conversion of that backlog into revenue, and

other statements contained herein that are not historical facts.

You should carefully consider all of the information in or incorporated by reference in this prospectus supplement and the accompanying prospectus prior to investing in our securities. Except as may be required under applicable law, we undertake no duty to update our forward-looking statements.

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PROSPECTUS SUPPLEMENT

This document consists of two parts. The first part is the prospectus supplement, which describes the specific terms of this offering and certain other matters relating to RTI International Metals, Inc. The second part, the accompanying prospectus, gives more general information, some of which does not apply to this offering. Generally, when we refer to the prospectus, we are referring to both parts of this document combined. This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the SEC) on August 12, 2009 that became effective on September 8, 2009. If the description in the prospectus supplement differs from the description in the accompanying prospectus, the description in the prospectus supplement supersedes the description in the accompanying prospectus.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus or any free writing prospectus prepared by us. We have not authorized anyone else to provide you with different information. If anyone provides you with different or additional information, you should not rely on it. You should assume that the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the date of the applicable document, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our Common Stock. Our business, financial condition, results of operations and prospects may have changed since such date. We are not making an offer of these securities in any state where the offer is not permitted.

INDUSTRY AND MARKET DATA

Market data and industry statistics and forecasts used throughout this prospectus are based on independent industry publications, reports by market research firms and other published independent sources. *The Airline Monitor* is the primary source for third-party market data and industry statistics and forecasts. Some data and other information are also based on our good faith estimates, which are derived from our review of internal surveys and independent sources. Although we believe these sources are credible, we have not independently verified the data or information obtained from these sources. Accordingly, investors should not place undue reliance on this information. By including such market data and industry information, we do not undertake a duty to provide such data in the future or to update such data if it is updated.

WHERE YOU CAN FIND MORE INFORMATION ABOUT US

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document that we file at the Public Reference Room of the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Our SEC filings are also available to the public from commercial retrieval services and at the website maintained by the SEC at www.sec.gov. Reports, proxy statements and other information are also available for inspection at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC and which is incorporated by reference will automatically update and supersede this information. We incorporate by reference the documents listed below and all future filings made pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act:

our Annual Report on Form 10-K for the year ended December 31, 2008,

our 2008 Proxy Statement filed with the SEC on March 13, 2009 (those parts incorporated by reference in our Annual Report on Form 10-K only),

our Quarterly Report on Form 10-Q for the three months ended March 31, 2009,

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our Quarterly Report on Form 10-Q for the three months ended June 30, 2009,
our Current Report on Form 8-K filed January 7, 2009,
our Current Report on Form 8-K filed February 3, 2009 (excluding items 2.02 and 9.01 and exhibit 99.1),
our Current Report on Form 8-K/A filed February 17, 2009 (excluding item 2.02),
our Current Report on Form 8-K filed March 4, 2009,
our Current Report on Form 8-K filed April 28, 2009 (excluding items 2.02 and 9.01 and exhibit 99.1),
our Current Report on Form 8-K filed August 4, 2009 (excluding items 2.02 and 9.01 and exhibit 99.1),
our Current Report on Form 8-K filed August 13, 2009,
our Current Report on Form 8-K filed September 8, 2009, and
the description of the Common Stock contained in our Registration Statement on Form 8-A12B (Registration No. 1-14437) dated August 21, 1998, including any reports updating that description.

You may obtain copies, without charge, of documents incorporated by reference in this prospectus, by requesting them from us in writing or by telephone as follows:

RTI International Metals, Inc.
Westpointe Corporate Center One
1550 Coraopolis Heights Road, Fifth Floor
Pittsburgh, PA 15108-2973
Telephone: (412) 893-0026
www.rtiintl.com

Exhibits to the filings will not be sent, unless those exhibits have been specifically incorporated by reference in this prospectus.

General information about RTI, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments and exhibits to those reports, are available free of charge through our website at <http://www.rtiintl.com> as soon as reasonably practicable after we file them with, or furnish them to, the SEC. Other information contained on our website is not incorporated into this prospectus or our other securities filings and is not a part of these filings.

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PROSPECTUS SUPPLEMENT SUMMARY

*This summary only highlights information contained elsewhere in this prospectus supplement and the accompanying prospectus. As a result, it does not contain all of the information that you should consider before purchasing shares of our Common Stock. You should read the entire prospectus supplement, including the accompanying prospectus and the documents incorporated by reference, which are described under the caption *Where You Can Find More Information About Us*. When used in this prospectus supplement, unless the context requires otherwise, the terms *we*, *our* and *us* refer to RTI International Metals, Inc. and its consolidated subsidiaries. Unless otherwise specified, any reference to a *year* is to a fiscal year ended December 31.*

RTI International Metals, Inc.

We are a leading producer and global supplier of titanium mill products and manufacturer of fabricated titanium and specialty metal components for the international aerospace, defense, energy, and industrial and consumer markets. Our integrated business model enables us to provide a broad range of product solutions, which we expect to leverage by increasing our percentage share of the total amount of titanium products acquired by our customers. We conduct our business through three segments: the Titanium Group, the Fabrication Group, and the Distribution Group. The Titanium Group melts, processes, and produces a complete range of titanium mill products, which are further processed by its customers for use in a variety of commercial aerospace, defense, and industrial applications. The Titanium Group also produces ferro titanium alloys for steel-making customers. The Fabrication Group is comprised of companies that extrude, fabricate, machine, and assemble titanium and other specialty metal parts and components. Its products, many of which are complex engineered parts and assemblies, serve commercial aerospace, defense, oil and gas, power generation, and chemical process industries, as well as a number of other industrial and consumer markets. The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys. Both the Fabrication Group and Distribution Group utilize the Titanium Group as their primary source of titanium mill products.

Competitive Strengths

Leading Vertically Integrated Supplier to a Diverse Customer Base. We maintain a breadth of capabilities that allow us to provide our customers with solutions spanning from titanium mill products to major assembly design, kitting, and system integration (which we refer to as our fabrication business). We believe that our participation throughout the supply chain, especially with respect to our fabrication capabilities, will provide a competitive advantage as aircraft production increases and continued design enhancements drive greater demand for fabricated titanium parts. We believe that our presence throughout the supply chain should serve to accelerate our revenue growth and profitability during periods of aircraft build-rate expansion. We believe that we are the fourth largest producer of aerospace-grade titanium mill products globally and that our size, expertise and domestic and international locations enable us to effectively serve the needs of our global customers across the aerospace, defense, energy, industrial and consumer end markets.

Longstanding Relationships and Long-Term Agreements with Key Customers. We believe that our focus on providing high value-added products, successful track record of production and delivery of fabricated titanium components and mill products, research and development efforts, and vertically-integrated product solutions have enabled us to forge strong and longstanding relationships with our customers. For example, we have been a supplier of titanium mill products to Airbus S.A.S. (Airbus) and Lockheed Martin Corporation (Lockheed Martin) for over 30 years. As a result of these relationships and our historic performance, we have been successful in securing several long-term agreements (LTAs) for the supply of titanium mill products and complex engineered components and assemblies for our

customers. Our three most significant LTAs are with Lockheed Martin, Airbus, and The Boeing Company (Boeing), which we estimate will generate net sales of approximately \$2.0 billion, \$1.9 billion, and \$0.9 billion, respectively, over the term of each contract. Our LTAs typically specify minimum production quantities and either have fixed pricing, pricing tied to an index or another pricing methodology.

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Key Supplier Positions on Current and Future Aerospace and Defense Programs. We supply fabricated components and assemblies and titanium mill products to our customers in support of several current and next generation aerospace and defense platforms. We are the only titanium company with significant content for the structural airframe on all four of the key next generation aircraft platforms (*i.e.* the Airbus A350XWB and A380, Boeing 787, and Lockheed Martin F-35). Under our LTA with Lockheed Martin, we are the primary titanium mill product supplier for the F-35 Joint Strike Fighter (JSF). The JSF is set to become the fighter for the 21st Century with expected production exceeding 3,000 aircraft over the life of the program. In 2007, we were awarded a long-term contract extension from Lockheed Martin to supply the first eight million pounds of the JSF annual titanium requirement through 2020. Similarly, we supply Airbus commercial aircraft platforms such as the A380 and A320, as well as military programs such as the A400M. Additionally, we are the sole supplier of seat tracks and various other titanium parts to Boeing in support of the 787 program. Our revenue per 787 is expected to range from approximately \$1.4 to \$1.6 million. Although this project has experienced substantial delays, Boeing has announced that it expects deliveries to begin in 2010 and that by late 2013 it expects to deliver ten aircraft per month. Under expected lead times, we will deliver the seat tracks to Boeing approximately six to 12 months before final delivery. Airbus has also announced the launch of another new aircraft, the A350XWB, to compete with Boeing's 787 models. The A350XWB is expected to enter service in 2013. These new aircraft will use substantially more titanium per aircraft than on any other commercial aircraft. As production of these new aircraft increases, titanium demand for aerospace applications is expected to grow to levels significantly above previous peak levels. In addition to aerospace applications, there are numerous titanium uses on ground vehicles and artillery driven by its armoring (greater strength) and mobility (lighter weight) enhancements. An example of these qualities is the light-weight Howitzer program which began full-rate production in 2005. The Company is the principal titanium supplier for the Howitzer under a contract with BAE Systems through the third quarter of 2010.

Favorable Long-Term End Market Dynamics. We serve the aerospace, defense, energy, and industrial and consumer markets. A common theme within the commercial aerospace and defense markets is the increased use of titanium on airframes and in jet engines, as well as in artillery weapon systems and armored vehicles. Titanium is growing in its use due to the metal's high strength, light weight, compatibility with composites, and noncorrosive qualities, which serves to increase operating efficiencies and lower life-cycle costs. We believe that Wide Body jets will represent almost 80% of the titanium used in commercial aircraft by 2013. For example, the A380 requires approximately 250,000 pounds of titanium per plane versus 30,000 pounds for an A320 narrow-body airframe. According to *The Airline Monitor*, Wide Body commercial jets are forecasted to grow in annual production from approximately 200 in 2009 to approximately 465 in 2015. Further, while requirements differ by variant, the JSF in the defense sector is currently expected to require approximately 45,000 pounds of titanium per plane. In the energy sector, the demand for our products for oil and gas extraction, including deep-drilling exploration and production, is expected to grow over the next several years from further development of energy from deepwater and difficult-to-reach locations around the globe. As the complexity of oil and gas exploration and production increases, the expected scope of potential uses for titanium-based structures and components is expected to increase. Growth in developing nations, such as China, India, and the Middle East, has stimulated increased demand from the Chemical Process Industry (CPI) for heat exchangers, tubing for power plant construction, and specialty metals for desalinization plants.

High Barriers to Entry. The titanium industry is a highly competitive and global market requiring significant capital investment and technical expertise to manufacture mill products. We believe that the primary factors driving customers' titanium product buying decisions are product quality, price, and the ability to meet quantity demands on time, and that we have developed the infrastructure and experience necessary to satisfy these demands. Before any major capital equipment can be placed into service, the output must be certified to meet exacting customer specifications. Customers typically require several production trials, often of varying mixes involving different alloys. This certification process can take as long as 18 months for established producers and much longer for new producers. In light of the rigid and often complicated specifications of titanium products, sophisticated metallurgical and/or chemical testing and inspection techniques must be deployed prior to shipment. While the fabricated product business

is less capital intensive, we believe the lack of a lengthy track record represents a significant barrier to entry of the Fabrication Group's business, as

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global customers are reluctant to entrust new entrants with critical supply chain responsibilities. We believe the combination of these factors substantially complicates replicating our integrated platform.

Strong and Experienced Management Team. Our management team, led by our CEO Dawne Hickton, includes executives and managers with significant industry, operational, and functional area experience who play a significant role in establishing and maintaining relationships with our customers and suppliers. Our named executive officers, on average, have more than 21 years of industry, operational, and functional area experience and are key contributors to our growth strategy, as well as lead the implementation of various productivity and profit enhancement programs.

Business and Growth Strategies

Continue to Capitalize on Favorable Long-Term Industry Trends. We believe that the long-term dynamics of the aerospace, defense, energy, and industrial markets are favorable, as the amount of titanium used in products, and on platforms, is expected to continue to increase. We believe that these long-term dynamics are evidenced by the trend toward Wide Body aircraft accounting for an increasingly larger percentage of Boeing and Airbus order backlogs, procurement plans for the JSF, the ballistic armor needs of military ground vehicles, and deepwater energy applications requiring stronger, lighter and more corrosion resistant materials. Specifically within the aerospace industry, this increase is driven by airlines' demand for enhanced operational efficiencies, lower life-cycle costs and more fuel-efficient and quieter aircraft. We believe that world demand for titanium will increase at a compounded annual growth rate (CAGR) of 8.2% from 2009 through 2015. We believe that demand for titanium within our largest end market, commercial aerospace, will increase at a CAGR of 15.7% over the same period, as newer generation and Wide Body aircraft gain a greater share of total deliveries. Not only do we expect that titanium mill product demand will grow, we also expect that demand for fabricated titanium parts will also increase as manufacturers realize the overall life-cycle benefits (durability, longevity, fuel-efficiency and noise reduction) of titanium versus other materials.

Successfully Execute Existing LTAs and Pursue Additional LTAs. We continue to focus significant management attention on effective execution of our existing LTAs. We seek to capitalize on our strong historical performance in order to extend the term and increase the scope of our existing agreements and obtain new LTAs with our customers. We believe there are attractive opportunities across both existing and future aerospace and defense platforms to provide both mill products and highly-engineered titanium components on an exclusive and long-term basis. For example, under our LTA with Lockheed Martin, we will supply the first eight million pounds of titanium annually for the JSF. We anticipate that Lockheed Martin may need more than eight million pounds per year when the program ramps up to full rate production, which is expected in 2014.

Continue to Invest in Strategic Capital Expansion Projects. We will continue to invest in capital expansion projects that we believe will generate appropriate returns on invested capital and provide us with customer or program expansion opportunities. For example, we are currently in the process of constructing a new rolling and forging facility in Martinsville, Virginia in order to support our LTAs with Airbus and Lockheed Martin. We expect that this facility will begin production in 2011 and will enable us to enhance our throughput and shorten lead times on certain products, primarily titanium sheet and plate. In addition, we have recently expanded our melting capabilities at our facilities in Niles and Canton, Ohio in support of those same LTAs. As we see long-term trends in the market changing, we may also adjust our expansion strategy to the outsourcing of key raw materials, primarily titanium sponge, in order to capitalize on more favorable costs and availability that will match our expected demand thereby enhancing our ability to achieve our target margins. If we elect to continue to outsource our titanium sponge needs, we expect that we will indefinitely delay the construction of our previously announced titanium sponge plant project which would result in a material asset impairment charge, and other potential charges that may be incurred under take or pay obligations.

Focus on Operational Efficiencies and Profitability. We continue to focus on program execution and operational efficiencies in order to drive profitability. During the first half of 2009, we removed approximately \$23 million of expenses while continuing to position the Company to be able to satisfy future customer capacity needs, including the expected significant increase in demand in our fabrication business. During

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2009, we closed two Distribution Group facilities located in Indianapolis, Indiana and Houston, Texas. Both of these closures were done as part of our ongoing cost rationalization strategy within the Distribution Group in light of current market conditions.

Pursue Selected Acquisitions. We continuously evaluate potential acquisition candidates as part of our broader strategic plan in an effort to enhance or improve our existing operations or capabilities, expand the potential scope of work with current customers, or provide access to new markets and/or customers for our products. For example, in 1998 we acquired Weld-Tech Engineering Services, located in Houston, Texas. This acquisition gave us entry into the oil and gas market, positioning us to exploit titanium's light weight and anti-corrosive properties for deepwater drilling. Additionally, in 2004, we acquired fabrication and machining capabilities through the purchase of Claro Precision, Inc., located near Montreal, Canada. This acquisition was undertaken to serve as the platform to position us as a leading vertically-integrated downstream producer of value-added components and subsystems to our customers. We have successfully leveraged this acquisition to win numerous engineered components and assemblies, including acting as a Tier 1 supplier for Boeing for its seat tracks on the 787.

Amendment to Credit Agreement

We have a \$425 million credit facility consisting of a \$225 million term loan and \$200 million of revolving credit, which expires in September 2012 subject to extensions in accordance with the terms of this facility. There were no outstanding borrowings under the \$200 million revolving credit portion of this facility as of September 8, 2009. We and the lenders under the \$200 million revolving credit portion of this facility have executed, in escrow, an amendment to this credit facility. The amendment, among other matters, provides additional flexibility on our financial covenants by amending and restating the EBITDA definition and amending the interest coverage ratio calculation. The amendment increases the interest rates and fees of this facility. The amendment will be effective upon consummation of this offering, repayment in full of our outstanding indebtedness and satisfaction of certain other conditions, and will apply to the \$200 million undrawn revolving credit portion that will survive the amendment, which we expect to occur on or about September 30, 2009.

Corporate Information

The address of our principal executive offices is Westpointe Corporate Center One, 1550 Coraopolis Heights Road, Fifth Floor, Pittsburgh, PA 15108-2973, and our telephone number at our principal executive offices is (412) 893-0026. We are an Ohio corporation, and our predecessors have been operating in the titanium industry since 1951.

Conflicts of Interest

As described in Use of Proceeds, we intend to use the proceeds of this offering to repay indebtedness outstanding under the term loan portion of our \$425 million credit facility. Because affiliates of some of the underwriters are lenders, and in some cases agents or managers for the lenders, under our credit facility and may receive more than 5% of the net proceeds of this offering, not including underwriting compensation, this offering is being conducted in compliance with Rule 2720 of the Financial Industry Regulatory Authority. Pursuant to that rule, the appointment of a qualified independent underwriter is not necessary in connection with this offering, as the shares have a bona fide public market (as such terms are defined in Rule 2720).

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THE OFFERING

Issuer	RTI International Metals, Inc., an Ohio corporation.
Shares of Common Stock offered by us	5,000,000 shares (plus an additional 750,000 shares subject to the underwriters' over-allotment option).
Shares of Common Stock to be outstanding immediately after this offering (1)	28,119,871 shares (28,869,871 shares if the underwriters exercise their over-allotment option in full).
Use of Proceeds	<p>We estimate that the net proceeds from the sale of the shares in this offering, after deducting the underwriting discounts and the estimated offering expenses payable by us, will be approximately \$94.9 million (or \$109.2 million if the underwriters exercise their over-allotment option in full), based on an assumed public offering price of \$20.05 per share, the last reported sale price of our Common Stock on the New York Stock Exchange on September 4, 2009.</p> <p>We intend to use the aggregate net proceeds from this offering, including any proceeds we may receive from the exercise by the underwriters of their over-allotment option (along with additional cash provided by us), to pay or repay the balance of outstanding indebtedness under the term loan portion of our \$425 million credit facility, as well as the balance of outstanding indebtedness under our two credit facilities that support our Claro operations near Montreal, Canada, and related costs and expenses. Affiliates of the underwriters are lenders under certain of our revolving credit facilities. See Conflicts of Interest and Use of Proceeds.</p>
Risk Factors	Investing in our Common Stock involves risks. See Risk Factors in this prospectus supplement and the accompanying prospectus for a description of certain risks you should consider before investing in our Common Stock.
New York Stock Exchange Symbol	RTI
Transfer Agent	The transfer agent and registrar for our Common Stock is National City Bank, N.A., which will remain as our transfer agent and registrar until October 31, 2009, at which time Computershare Trust Company, N.A., whose parent, Computershare Inc., purchased the stock transfer business of National City Bank, will become our transfer agent and registrar for our Common Stock.

(1) The amounts above are based on 23,119,871 shares of Common Stock outstanding as of August 31, 2009 and assume no exercise of outstanding options since that date. The number of common shares expected to be outstanding after this offering excludes:

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511,524 shares of our Common Stock that were subject to outstanding stock options at a weighted average exercise price of \$30.84 per share as of August 31, 2009;

418,406 shares of our Common Stock represented by unvested restricted stock and performance shares awarded as of August 31, 2009; and

1,572,409 shares of our Common Stock reserved for future grants under our director and employee stock plans as of August 31, 2009.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of their right to purchase up to 750,000 shares of Common Stock to cover over-allotments. See Underwriting .

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We derived the summary consolidated financial data shown below as of December 31, 2008, 2007 and 2006 and for each of the years then ended from our audited consolidated financial statements and for the six-month periods ended June 30, 2009 and 2008 from our unaudited consolidated financial statements. The summary consolidated financial data for periods prior to 2009 reflect the retrospective application of FASB Staff Position No. EITF 03-6-1, *Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities* (FSP EITF 03-6-1), which we adopted, as required, on January 1, 2009. The unaudited financial statements from which we derived this data were prepared on the same basis as the audited consolidated financial data and include all adjustments, consisting only of normal recurring adjustments, necessary to present fairly our results of operations and financial condition as of the periods presented. The results of operations for interim periods are not necessarily indicative of the operating results for any future period. You should read the following financial information in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the related notes incorporated by reference in this prospectus supplement.

	Six Months Ended		Year Ended December 31,		
	June 30,		2008	2007	2006
	2009	2008			
	(Unaudited)				
	(In thousands, except per share data)				
Income Statement Data:					
Net sales	\$ 210,408	\$ 310,477	\$ 609,900	\$ 626,799	\$ 505,389
Operating income (loss)	(2,382)	64,120	87,392	141,161	115,253
Income (loss) before income taxes	(4,336)	64,197	87,975	142,467	118,291
Net income (loss)	(1,334)	40,850	55,695	92,631	75,700
Earnings (loss) per share:					
Basic	\$ (0.06)	\$ 1.77	\$ 2.42	\$ 4.01	\$ 3.32
Diluted	\$ (0.06)	\$ 1.76	\$ 2.41	\$ 3.99	\$ 3.27

	June 30,	December 31,	
	2009	2008	2007
	(Unaudited)		
Balance Sheet Data:			
Working capital	\$ 519,829	\$ 559,601	\$ 405,907
Total assets	1,017,141	1,029,203	755,284
Total debt	241,352	239,925	17,596
Total shareholders' equity	608,449	601,934	575,784

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RISK FACTORS

Any investment in our Common Stock involves a high degree of risk. You should carefully consider the risks described below and under the caption "Risk Factors" in the accompanying prospectus, in addition to the other information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus before deciding whether to purchase our Common Stock. In addition, you should carefully consider, among other things, the matters discussed under "Risk Factors" in other documents that we subsequently file with the SEC, all of which are incorporated by reference in this prospectus supplement and the accompanying prospectus. The risks and uncertainties described below are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of the following risks actually occur, our business, financial condition and results of operations would suffer. In that event, the trading price of our Common Stock could decline, and you may lose all or part of your investment in our Common Stock. The risks discussed below also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. See "Forward-Looking Statements" .

Risks Relating to this Offering and Our Common Stock

The price of our Common Stock has fluctuated and may continue to fluctuate, which may make it difficult for you to resell the Common Stock when you want or at prices you find attractive.

The market price and volume of our Common Stock have been and may continue to be subject to significant fluctuations due not only to general stock market conditions, but also to a change in sentiment in the market regarding our industry, operations, business prospects or liquidity. You may not be able to sell your shares of our Common Stock at or above the public offering price, or at all. During the period from January 1, 2008 to September 4, 2009, our Common Stock has fluctuated from a high of \$70.33 per share to a low of \$7.91 per share. In addition to the risk factors discussed in this prospectus supplement and in the accompanying prospectus, the price and volume volatility of our Common Stock may be affected by:

operating results that vary from expectations of management, securities analysts and investors;

developments in our business or in our industry generally;

regulatory changes affecting our industry generally or our business and operations;

the operating and securities price performance of companies that investors consider to be comparable to us;

announcements of strategic developments, acquisitions and other material events by us, our customers or our competitors; and

changes in global financial and economic markets and general market conditions, such as interest or foreign exchange rates, commodity and equity prices, availability of credit, asset valuations, and volatility.

Any volatility of or a significant decrease in the market price of our Common Stock could also negatively affect our ability to make acquisitions using Common Stock. Further, if we were to be the object of securities class action litigation as a result of volatility in our Common Stock price or for other reasons, it could result in substantial costs and diversion of our management's attention and resources, which could negatively affect our financial results. In addition, in recent years, the global equity markets have experienced substantial price and volume fluctuations. In the

fourth quarter of 2008, the volatility in capital markets reached extreme levels. This volatility has had a significant impact on the market price of securities issued by many companies including us and the companies in our industry. The price of our Common Stock could fluctuate based upon factors that have little or nothing to do with our company, and these fluctuations could materially reduce our stock price and your ability to sell your shares.

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Future sales of our Common Stock in the public market or the issuance of securities senior to our Common Stock could adversely affect the trading price of our Common Stock and our ability to raise funds in new stock offerings.

Sales by us or our shareholders of a substantial number of shares of our Common Stock in the public markets following this offering, or the perception that these sales might occur, could cause the market price of our Common Stock to decline or could impair our ability to raise capital through a future sale of, or pay for acquisitions using, our equity securities.

We and our executive officers and directors have agreed, subject to certain exceptions, for a period of 90 days from the date of this prospectus supplement, that we and they will not, without the prior written consent of the representatives on behalf of the underwriters, directly or indirectly, offer to sell, sell or otherwise dispose of any shares of our Common Stock. All of the shares sold in this offering will be freely transferable, except for any shares sold to our affiliates, as that term is defined in Rule 144 under the Securities Act.

We may issue Common Stock or equity securities senior to our Common Stock in the future for a number of reasons, including to finance our operations, growth plans or acquisitions, to adjust our ratio of debt-to-equity, to satisfy our obligations upon the exercise of options or for other reasons. We cannot predict the effect, if any, that future sales or issuance of shares of our Common Stock or other equity securities, or the availability of shares of Common Stock or such other equity securities for future sale or issuance, will have on the trading price of our Common Stock.

Certain provisions of our Articles of Incorporation and Code of Regulations could discourage acquisitions, dilute shareholders and adversely affect the price of our Common Stock.

Certain provisions of our articles of incorporation, code of regulations, credit facility and Ohio law could discourage potential acquisition proposals and could delay or prevent a change in control. We are authorized to issue up to five million shares of preferred stock, the relative rights and preferences of which may be fixed by our board of directors, subject to the provisions of our articles of incorporation, without shareholder approval. Although we have no present plans to issue any shares of preferred stock, the future issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control or the payment of dividends on our Common Stock. The issuance of preferred stock could also adversely affect the voting power of the holders of Common Stock, including the loss of voting control to others. The provisions that discourage potential acquisitions of us and adversely affect the voting power of the holders of Common Stock may adversely affect the price of our Common Stock.

We do not intend to pay dividends on our Common Stock for the foreseeable future.

We have never declared or paid cash dividends on our Common Stock. In addition, we must comply with the covenants in our revolving credit facility if we want to pay cash dividends. We currently intend to retain our future earnings, if any, to finance the further development and expansion of our business and do not intend to pay cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend upon our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments and such other factors as our board of directors deems relevant. Accordingly, you may need to sell your shares of our Common Stock to realize a return on your investment, and you may not be able to sell your shares at or above the price you paid for them.

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USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of the 5,000,000 shares of Common Stock we are offering will be approximately \$94.9 million, based on an assumed public offering price of \$20.05 per share, the last reported sale price of our Common Stock on the New York Stock Exchange on September 4, 2009 and after deducting the underwriting discounts and the estimated offering expenses payable by us. If the underwriters exercise their over-allotment option in full, we estimate the net proceeds to us will be approximately \$109.2 million. We intend to use the aggregate net proceeds from this offering, including any proceeds we may receive from the exercise by the underwriters of their over-allotment option (along with additional cash provided by us), to repay or pay the balance of outstanding indebtedness under the term loan portion of our \$425 million credit facility (the Term Loan), the balance of outstanding indebtedness under our two credit facilities that support our Claro operations near Montreal, Canada (the Canadian Credit Facilities), and related costs and expenses.

We completed the first amendment and restatement of our \$240 million credit agreement on September 8, 2008. The amendment and restatement replaced our \$240 million revolving credit facility with a \$225 million term loan and a \$200 million revolving credit facility. Interest on the term loan accrues at either (i) the base rate (National City prime) or (ii) the LIBOR rate plus, in either case, an applicable margin based upon the ratio of our consolidated net debt to consolidated EBITDA, each as defined in the credit agreement. The base rate margin varies from 0.5% to 1.0%, depending on leverage and the LIBOR margin varies from 2.0% to 2.5%, depending on leverage. Initial borrowings under the term loan were priced at 4.49%. The interest rate election is at our discretion. We have currently chosen the LIBOR rate option for the term loan. If we do not prepay the term loan, the principal amount of the term loan will amortize in quarterly installments commencing in 2010, such that 20% of the principal balance would be required to be repaid in 2010, 20% would be required to be repaid in 2011 and the remaining 60% would be required to be repaid in 2012.

Our wholly-owned Canadian subsidiary RTI-Claro, Inc. (Claro), maintains a credit agreement with National City Bank, Canada Branch that provides for an unsecured \$16.0 million Canadian credit facility. This credit facility bears interest at a rate ranging from Canadian Dollar Offered Rate plus 0.65% to Canadian Dollar Offered Rate plus 2.25% or Canadian Prime minus 0.75% to Canadian Prime plus 0.75%, depending upon our leverage ratio. The credit facility operated as a revolving credit facility until July 1, 2007, at which time the outstanding principal and interest were converted to a ten-year term loan effective July 1, 2007, and which if we do not prepay the term loan, is required to be repaid in 39 equal quarterly principal and interest payments (based on a 15-year amortization schedule) and a final balloon payment of outstanding principal and interest on June 30, 2017. On September 8, 2008, the credit facility maintained by Claro was amended to conform it to our credit facility discussed above.

The proceeds under the two term loans have been and can be used for general corporate purposes, working capital, to refinance existing indebtedness, as well as capital expenditures, acquisitions and investments permitted thereunder.

Claro also maintains an interest-free loan agreement which allows for borrowings of up to \$5.2 million Canadian Dollars. This loan agreement was obtained through an affiliate of the Canadian government. Borrowings under this agreement are to be used for new equipment related to the capital expansion efforts at our Claro facility. Under the terms of the loan, if we do not prepay the loan, the principal will be required to be repaid in 60 equal, monthly and consecutive payments, which began in March 2009.

Because affiliates of some of the underwriters are lenders, and in some cases agents or managers for the lenders, under our credit facility and may receive more than 5% of the net proceeds of this offering, not including underwriting compensation, this offering is being conducted in compliance with Rule 2720 of the Financial Industry Regulatory

Authority. Pursuant to that rule, the appointment of a qualified independent underwriter is not necessary in connection with this offering, as the shares have a bona fide public market (as such terms are defined in Rule 2720).

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Our Common Stock is currently traded on the New York Stock Exchange under the symbol RTI. The high and low sales prices as reported on the New York Stock Exchange for the periods indicated are set forth in the table below.

	Price Range	
	High	Low
Fiscal year ended December 31, 2007		
First Quarter	\$ 94.30	\$ 67.82
Second Quarter	\$ 101.49	\$ 73.04
Third Quarter	\$ 88.32	\$ 58.42
Fourth Quarter	\$ 85.20	\$ 64.59
Fiscal year ended December 31, 2008		
First Quarter	\$ 70.33	\$ 43.40
Second Quarter	\$ 51.84	\$ 35.25
Third Quarter	\$ 36.12	\$ 17.15
Fourth Quarter	\$ 19.45	\$ 7.91
Fiscal year ending December 31, 2009		
First Quarter	\$ 16.48	\$ 8.99
Second Quarter	\$ 22.88	\$ 11.23
Third Quarter (through September 4, 2009)	\$ 20.41	\$ 15.02

On September 4, 2009, the last reported sale price of the Common Stock on the New York Stock Exchange was \$20.05 per share. As of August 31, 2009, there were 621 Common Stock holders of record.

We have never declared or paid cash dividends on our Common Stock. In addition, we must comply with the covenants in our revolving credit facility if we want to pay cash dividends. We currently intend to retain our future earnings, if any, to finance the further development and expansion of our business and do not intend to pay cash dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend upon our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments and such other factors as our board of directors deems relevant.

Table of Contents**CAPITALIZATION**

The following table sets forth our cash and cash equivalents and our consolidated capitalization as of June 30, 2009:

on an actual basis; and

on an as adjusted basis after giving effect to:

this offering and the application of the proceeds therefrom, together with our available cash, to repay or pay (i) the balance of outstanding indebtedness under the Term Loan, (ii) the balance of outstanding indebtedness under the Canadian Credit Facilities and (iii) related costs and expenses; and

our prepayment, on July 31, 2009, of \$78.8 million of principal under the Term Loan.

You should read the information in this table together with Use of Proceeds and our Consolidated Financial Statements and the related notes and the information contained in the documents incorporated by reference in this prospectus supplement.

	As of June 30, 2009	
	Actual	As Adjusted(1)
	(Dollars in thousands)	
Cash and cash equivalents	\$ 261,069	\$ 110,825
Debt:		
Current portion of long-term debt	\$ 24,319	\$
Long-term debt, less current portion	217,033	118
Total debt	241,352	118
Shareholders' equity:		
Preferred stock		
Common stock	238	288
Additional paid-in capital	309,666	404,499
Treasury stock, at cost; 694,314 shares	(16,979)	(16,979)
Accumulated other comprehensive loss	(40,478)	(38,227)
Retained earnings	356,002	353,751
Total shareholders' equity	608,449	703,332
Total capitalization:	\$ 849,801	\$ 703,450

(1) Based on estimated net proceeds of approximately \$94.9 million from the sale of 5,000,000 shares of our Common Stock in this offering at an assumed public offering price of \$20.05 per share, the last reported sale

price of our Common Stock on the New York Stock Exchange on September 4, 2009, after deducting the underwriting discounts and the estimated offering expenses payable by us and assuming the underwriters do not exercise their over-allotment option.

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BUSINESS

The Company

We are a leading producer and global supplier of titanium mill products and manufacturer of fabricated titanium and specialty metal components for the national and international aerospace, defense, energy, industrial, and consumer markets. We are a successor to entities that have been operating in the titanium industry since 1951. We first became publicly traded on the New York Stock Exchange in 1990 under the name RMI Titanium Co., and were reorganized into a holding company structure in 1998 under the symbol RTI.

We conduct business in three segments: the Titanium Group, the Fabrication Group, and the Distribution Group.

The Titanium Group melts, processes, and produces a complete range of titanium mill products, which are further processed by our customers for use in a variety of commercial aerospace, defense, and industrial applications. The titanium mill products consist of basic mill shapes including ingot, slab, bloom, billet, bar, plate and sheet. The Titanium Group also produces ferro titanium alloys for steel-making customers.

The Fabrication Group is comprised of companies that extrude, fabricate, machine, and assemble titanium and other specialty metal parts and components. Its products, many of which are complex engineered parts and assemblies, serve commercial aerospace, defense, oil and gas, power generation, and chemical process industries, as well as a number of other industrial and consumer markets.

The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys.

Both the Fabrication Group and Distribution Group utilize the Titanium Group as their primary source of titanium mill products.

Industry Overview

Titanium's physical characteristics include a high strength-to-weight ratio, high temperature performance, and superior corrosion and erosion resistance. Relative to other metals, it is particularly effective in extremely harsh conditions. Given these properties, its scope of potential uses would be much broader than current uses but for its higher cost of production as compared to other metals. The first major commercial application of titanium occurred in the early 1950's when it was used in components in aircraft gas turbine engines. Subsequent applications were developed to use the material in other aerospace component parts and in airframe construction. Traditionally, a majority of the U.S. titanium industry's output has been used in aerospace applications. However, in recent years, significant quantities of the industry's output have been used in non-aerospace applications, such as the global chemical processing industry, oil and gas exploration and production, geothermal energy production, consumer products, and non-aerospace military applications such as armor protection.

The U.S. titanium industry's reported shipments were approximately 67 million pounds in 2006, 73 million pounds in 2007, and 77 million pounds in 2008. Demand from all major market segments is expected to decrease in 2009 due to the continuing global economic downturn, as well as the announced delays in the production of Boeing's 787 platform, which has created excess inventory in the supply chain. The cyclical nature of the aerospace and defense industries have been the principal cause of the fluctuations in the demand for titanium-related products.

Management believes that aircraft manufacturers and their subcontractors generally order titanium mill products six to eighteen months in advance of final aircraft production. This long lead time is due to the time it takes to produce a final assembly or part that is ready for installation in an airframe or jet engine. Therefore, titanium demand from commercial aerospace is likely to precede any expected increase or decrease in aircraft production.

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The following is a summary of our proportional sales to each of the three major markets we serve and a discussion of events occurring within those markets:

	2008	2007	2006
Commercial Aerospace	50%	50%	45%
Defense	34%	33%	32%
Industrial and Consumer	16%	17%	23%

Commercial Aerospace

In 2008 our sales to the commercial aerospace market were approximately 50% of consolidated sales compared to 50% in 2007 and 45% in 2006. Until recently, growth in this market was the result of increased world-wide air travel, driving not only increased plane production but also larger aircraft with higher titanium content than previous models. Despite the slowdown in 2008 relative to 2007, expected changes in global demographics are driving significant growth in demand for new aircraft, not to mention an expected replacement cycle of older aircraft. The leading manufacturers of commercial aircraft, Airbus and Boeing, reported an aggregate of 7,394 aircraft in backlog at the end of 2008, an 8.5% increase from the prior year. As of July 31, 2009, Airbus and Boeing backlog was 7,020 aircraft, representing an estimated more than six years of production. According to *The Airline Monitor*, reported deliveries of large commercial aircraft by Airbus and Boeing totaled 852 in 2008, 888 in 2007, and 820 in 2006. Further, *The Airline Monitor*, forecasts deliveries of large commercial jets by Boeing and Airbus to reach approximately 960 aircraft in 2009, 970 aircraft in 2010, and 1,020 aircraft in 2011.

Airbus is now producing the largest commercial aircraft, the A380, and Boeing expects deliveries of the new 787 to begin in 2010. Airbus has also announced the launch of another new aircraft, the A350XWB, to compete with Boeing's 787 models. The A350XWB is expected to go into service in 2013. All three of these new aircraft will use substantially more titanium per aircraft than on any other commercial aircraft. As production of these new aircraft increases, titanium demand is expected to grow to levels significantly above previous peak levels.

Projected Large Commercial Jet Airplane Deliveries

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Body ⁽¹⁾	375	345	345	345	295	240	190	150	430 ⁽²⁾	450
dy	100	115	180	215	225	240	255	250	250	250
	475	460	525	560	520	480	445	400	680	700
Body ⁽¹⁾	385	400	390	385	385	330	295	225	155	450 ⁽²⁾
dy	100	110	105	110	130	180	210	240	255	255
	485	510	495	495	515	510	505	465	410	705
Body	760	745	735	730	680	570	485	375	515	895
%		(2.0)%	(1.3)%	(0.7)%	(6.8)%	(16.2)%	(14.9)%	(22.7)%	37.3%	73.8%
dy	200	225	285	325	355	420	465	490	575	510
%		12.5%	26.7%	14.0%	9.2%	18.3%	10.7%	5.4%	17.3%	(11.3)%

960	970	1020	1055	1035	990	950	865	1090	1405
	1.0%	5.2%	3.4%	(1.9)%	(4.3)%	(4.0)%	(8.9)%	26.0%	28.9%

Source: The Airline Monitor, July 2009.

- 1. Narrow body defined as Boeing 737 and Airbus A318/319/320/321 models. Wide Body includes all other large jet models.*
- 2. Estimated year and delivery rates for new narrow body plane for each manufacturer.*

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Defense

Defense markets represented approximately 34% of our revenues in 2008 compared to 33% in 2007 and 32% in 2006. Military aircraft make extensive use of titanium and other specialty metals in their airframe structures and jet engines. These aircraft include U.S. fighters such as the F/A-22, F/A-18, F-15, and the JSF; and European fighters, such as the Mirage, Rafale, and Eurofighter-Typhoon. Military troop transports such as the C-17 and A400m also use significant quantities of these metals.

The JSF is set to become the fighter for the 21st Century with expected production exceeding 3,000 aircraft over the life of the program. In 2007, we were awarded a long-term contract extension from Lockheed Martin to support full-rate production of the JSF through 2020. Under the contract, we will supply the first eight million pounds of titanium mill products annually as the program fully ramps up, which is expected in 2014. The products we will supply include sheet, plate, and billet.

In addition to aerospace applications, there are numerous titanium uses on ground vehicles and artillery driven by its armoring (greater strength) and mobility (lighter weight) enhancements. An example of these qualities is the light-weight Howitzer program which began full-rate production in 2005. We are the principal titanium supplier for the Howitzer under a contract with BAE Systems through the third quarter of 2010.

Industrial & Consumer

Industrial & Consumer markets provided approximately 16% of our revenue in 2008, compared to 17% in 2007 and 23% in 2006. These sales consist of shipments to the energy sector from the Fabrication Group and continued shipments of ferro titanium to the steel industry from the Titanium Group.

In the energy sector, the demand for our products for oil and gas extraction, including deep-drilling exploration and production, increased in 2008. This demand is expected to grow over the next several years from further development of energy from deepwater and difficult-to-reach locations around the globe. As the complexity of oil and gas exploration and production increases, the expected scope of potential uses for titanium-based structures and components is expected to increase.

Growth in developing nations, such as China, India, and the Middle East, has stimulated increased demand from the CPI for heat exchangers, tubing for power plant construction, and specialty metals for desalinization plants. Titanium is also being used extensively in global medical markets for orthopedic implants in hip and knee replacements; sporting goods such as golf clubs and tennis racquets; and other diverse applications including eyeglass frames and architectural structures.

Products and Segments

We conduct our operations in three reportable segments: the Titanium Group, the Fabrication Group, and the Distribution Group.

Titanium Group

The Titanium Group's products consist primarily of titanium mill products and ferro titanium alloys (for use in steel and other industries). Its titanium furnaces (as well as other processing equipment) and products are certified and approved for use by all major domestic and most international manufacturers of commercial and military airframes and related jet engines. The attainment of such certifications is often time consuming and expensive and can serve as a

barrier to entry into the titanium mill product market. Titanium mill products are fabricated into parts and utilized in aircraft structural sections such as landing gear, fasteners, tail sections, wing support and carry-through structures, and various engine components including rotor blades, vanes and discs, rings, and engine cases.

The mill products are sold to a customer base consisting primarily of manufacturing and fabrication companies in the supply chain for the commercial aerospace, defense, and industrial and consumer markets. Customers include prime aircraft manufacturers and their family of subcontractors including fabricators, forge shops, extruders, castings producers, fastener manufacturers, machine shops, and metal distribution companies.

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Titanium mill products are semi-finished goods and usually represent the raw or starting material for these customers who then form, fabricate, machine, or further process the products into semi-finished and finished parts. Approximately 55% of our titanium mill products were sold to our Fabrication and Distribution Groups for the first six months of 2009, compared to 46% for the first six months of 2008, and 43% of titanium mill products in full year 2008 compared to 42% in 2007, were sold to our Fabrication and Distribution Groups, where value-added services are performed on such parts prior to their ultimate shipment of parts to the customer.

In connection with our long-term mill product supply agreements for the JSF program and the Airbus family of commercial aircraft, including the A380 and A350XWB programs, we are undertaking several capital expansions. During 2007, we announced plans to construct a new titanium forging and rolling facility in Martinsville, Virginia, and new melting facilities in Canton and Niles, Ohio, with anticipated capital spending of approximately \$100 million; we presently anticipate the majority of the capital expenditures related to these facilities to occur in 2009 and 2010. We also announced plans to construct a premium-grade titanium sponge facility in Hamilton, Mississippi, with anticipated capital spending of approximately \$300 million. To date, we have spent approximately \$60 million on this project and have additional commitments of up to approximately \$40 million related to this project. In light of current economic uncertainties, the overall softening within the industry, and the continued delays in the production schedules of several of the programs driving titanium demand, we have delayed the construction of this facility. We will continue to monitor market conditions in relation to the timing of our future capital expenditures associated with this project, as well as continue to assess potential alternative sourcing options for sponge supply. These market conditions include expected future mill product demand volume and its impact on our metallics requirements, which may result in an indefinite delay of the sponge plant project.

Fabrication Group

The Fabrication Group is comprised of companies with significant hard-metal expertise that fabricate, machine, and assemble, titanium and other specialty metal parts and components. Its products, many of which are engineered parts and assemblies, serve the commercial aerospace, defense, oil and gas, power generation, medical device, and chemical process industries, as well as a number of other industrial and consumer markets. With operations located in Houston, Texas; Washington, Missouri; and Montreal, Canada; and a representative office in China; the Fabrication Group provides value-added products and services such as engineered tubulars and extrusions, fabricated and machined components and sub-assemblies, as well as engineered systems for deepwater oil and gas exploration and production infrastructure. The Titanium Group is the primary source of mill products for the Fabrication Group.

Distribution Group

The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys. With operations in Garden Grove, California; Windsor, Connecticut; Sullivan, Missouri; Staffordshire, England; and Rosny-Sur-Seine, France, the Distribution Group is in close proximity to its wide variety of commercial aerospace, defense, and industrial and consumer customers.

When titanium products and fabrications are involved in a project, the Titanium Group and the Fabrication Group coordinate their varied capabilities to provide the best materials solution for its customers. An example is our Howitzer program. The Titanium Group is providing the titanium mill products to the Fabrication Group, which in turn is providing extrusions, hot formed parts, and machined components that are packaged as a kit and sent to BAE Systems for final assembly. This contract was awarded to us in 2005 for deliveries which extend through the third quarter 2010.

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The amount and percentage of our consolidated net sales represented by each Group for the six months ended June 30, 2009 and 2008, and for the past three years are summarized in the following table:

(dollars in millions)	Six Months Ended June 30, 2009		Six Months Ended June 30, 2008		2008		2007		2006	
	\$	%	\$	%	\$	%	\$	%	\$	%
	(Unaudited)		(Unaudited)							
Titanium Group	\$ 57.4	27.3%	\$ 107.5	34.6%	\$ 202.0	33.1%	\$ 253.1	40.4%	\$ 204.9	40.5%
Fabrication Group	52.6	25.0%	71.1	22.9%	146.8	24.1%	132.0	21.1%	83.1	16.4%
Distribution Group	100.4	47.7%	131.9	42.5%	261.1	42.8%	241.7	38.5%	217.4	43.1%
Total consolidated net sales	\$ 210.4	100.0%	\$ 310.5	100.0%	\$ 609.9	100.0%	\$ 626.8	100.0%	\$ 505.4	100.0%

Operating income (loss) and the percentage of consolidated operating income (loss) contributed by each Group for the six months ended June 30, 2009 and 2008, and for the past three years are summarized in the following table:

(dollars in millions)	Six Months Ended June 30, 2009		Six Months Ended June 30, 2008		2008		2007		2006	
	\$	%	\$	%	\$	%	\$	%	\$	%
	(Unaudited)		(Unaudited)							
Titanium Group	\$ 6.3	N/M	\$ 46.8	73.0%	\$ 61.8	70.7%	\$ 102.6	72.7%	\$ 78.5	68.1%
Fabrication Group	(13.6)	N/M	2.4	3.8%	2.0	2.3%	3.5	2.5%	8.0	6.9%
Distribution Group	4.9	N/M	14.9	23.2%	23.6	27.0%	35.1	24.8%	28.8	25.0%
Total consolidated operating income (loss)	\$ (2.4)	100.0%	\$ 64.1	100.0%	\$ 87.4	100.0%	\$ 141.2	100.00%	\$ 115.3	100.0%

The Company's total consolidated assets identified with each Group as of June 30, 2009, December 31, 2008, and December 31, 2007, are summarized in the following table:

(In millions)	June 30, 2009 (Unaudited)	2008	2007
Titanium Group	\$ 388.2	\$ 375.0	\$ 281.2
Fabrication Group	226.8	224.5	226.4
Distribution Group	142.3	155.8	146.0
General Corporate(1)	259.8	273.9	101.7

Total consolidated assets	\$	1,017.1	\$	1,029.2	\$	755.3
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(1) Consists primarily of unallocated cash, short-term investments, and deferred tax assets.

Exports

The majority of our exports consist of titanium mill products, extrusions, and machined extrusions used in aerospace markets. Also, significant exports to energy market customers are beginning to occur as deepwater oil and gas exploration increases beyond the Gulf of Mexico and Northern Atlantic Ocean regions. Our export sales were 31%, 26%, and 22% of net sales for the years ended December 31, 2008, 2007, and 2006, respectively. Such sales were made primarily into Europe, where we are a leader in supplying flat-rolled titanium alloy mill products. In addition, sales to the Asian market continue to accelerate. Most of our export sales are denominated in U.S. Dollars.

We supply titanium alloy mill products and extrusions to the European market through our network of European distribution companies, which secures contracts to furnish mill products to the major European aerospace manufacturers. We, through our French subsidiary, Reamet, were chosen by Airbus in 2006 as a major supplier of titanium flat-rolled products through 2015. In 2007, we, through our European subsidiaries,

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entered into a supplemental agreement with Airbus to supply a minimum of 45 million pounds of titanium mill products through 2020.

Backlog

Our order backlog for all markets was approximately \$320 million as of June 30, 2009, as compared to \$400 million at December 31, 2008. Of the backlog at June 30, 2009, approximately \$188 million is likely to be realized over the remainder of 2009. We define backlog as firm business scheduled for release into our production process for a specific delivery date. We have numerous requirement contracts that extend multiple years, including the Airbus, JSF and Boeing 787 long-term supply agreements, that are not included in backlog until a specific release into production or a firm delivery date has been established.

Raw Materials

The principal raw materials used in the production of titanium mill products are titanium sponge (a porous metallic material, so called due to its appearance), titanium scrap, and various alloying agents. We source our raw materials from a number of domestic and foreign titanium suppliers under long-term contracts and other negotiated transactions. Currently, the majority of our titanium sponge requirements are sourced from foreign suppliers. Requirements for titanium sponge, scrap, and alloys vary depending upon the volume and mix of final products. Our cold-hearth melting process provides us with the flexibility to consume a wider range of metallics, thereby reducing our need for purchased titanium sponge.

We currently have supply agreements for certain critical raw materials. These contracts are with suppliers located in Japan, Kazakhstan, and the United States, and allow us to purchase certain quantities of raw materials at annually negotiated prices. Purchases under these contracts are U.S. Dollar denominated. These contracts expire at various periods through 2016. We purchase the balance of its raw materials opportunistically on the spot market as needed.

We believe we have adequate sources of supply for titanium sponge, scrap, alloying agents, and other raw materials to meet our near and medium-term raw material needs. During 2007, we announced plans to construct a premium-grade titanium sponge facility in Hamilton, Mississippi, with anticipated capital spending of approximately \$300 million. To date, we have spent approximately \$60 million on this project and have additional commitments of up to approximately \$40 million related to this project. In light of current economic uncertainties, the overall softening within the industry, and the continued delays in the production schedules of several of the programs driving titanium demand, we have delayed the construction of this facility. Based on the current long-term trends in the supply market, we may adjust our expansion strategy relative to the outsourcing of key raw materials, primarily titanium sponge, in order to capitalize on more favorable costs and availability. If we elect to continue to outsource our titanium sponge needs, we expect that we will indefinitely delay the construction of our previously announced titanium sponge plant, which would result in a material asset impairment charge, and other potential charges that may be incurred under take or pay obligations.

Business units in the Fabrication and Distribution Groups obtain the majority of their titanium mill product requirements from the Titanium Group. Other metallic requirements are generally sourced from the best available supplier at competitive market prices.

Competition and Other Market Factors

The titanium metals industry is a highly competitive global business. Titanium competes with other materials of construction, including certain stainless steel, other nickel-based high temperature and corrosion resistant alloys, and composites. A metal manufacturing company with rolling and finishing facilities could participate in the mill product

segment of the industry. It would either need to acquire intermediate product from an existing source or further integrate to include vacuum melting and forging operations to provide the starting stock for further rolling. In addition, many end-use applications, especially in aerospace, require rigorous testing, approvals, and customer certification prior to purchase which would require a significant investment of time and capital coupled with extensive technical expertise.

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The aerospace consumers of titanium products tend to be highly concentrated. Boeing, Airbus, and Lockheed Martin manufacture airframes. General Electric, Pratt & Whitney, and Rolls Royce build jet engines. Through the direct purchase from these companies and their family of specialty subcontractors, they account for a majority of aerospace products for large commercial aerospace and defense applications.

Producers of titanium mill products are located primarily in the U.S., Japan, Russia, Europe, and China. We participate directly in the titanium mill product business primarily through our Titanium Group. Our principal competitors in the aerospace titanium market are Allegheny Technologies Incorporated (ATI) and Titanium Metals Corp. (TIE), both based in the United States, and Verkhnyaya Salda Metallurgical Production Organization (VSMPO), based in Russia. TIE and certain Japanese producers are our principal competitors in the industrial and emerging markets. We compete primarily on the basis of price, quality of products, technical support, and the availability of products to meet customers' delivery schedules.

Competition for the Fabrication and Distribution Groups is primarily on the basis of price, quality, timely delivery, and customer service. We believe that the business units in the Fabrication and Distribution Groups are well positioned to continue to compete and grow due to the range of goods and services offered and the increasing synergy with the Titanium Group for product and technical support.

Trade and Legislative Factors

Imports of titanium mill products from countries that receive the normal trade relations (NTR) tariff rate are subject to a 15% tariff. The tariff rate applicable to imports from countries that do not receive NTR treatment is 45%. A 15% tariff exists on unwrought titanium products entering the U.S., including titanium sponge. Currently, our imported titanium sponge from Kazakhstan and Japan is subject to this 15% tariff. Our competitors that do not rely on imported titanium sponge are not subject to the additional 15% tariff in the cost of their products. We have sought relief from this tariff through the Offices of the U.S. Trade Representative but have been unsuccessful in having the tariff removed. We believe the U.S. Trade laws as currently applied to the domestic titanium industry create a competitive disadvantage to us.

U.S. Customs and Border Protection (U.S. Customs) administers a duty drawback program whereby duty paid on imported items can be recovered. In the event materials on which duty has been paid are used in the manufacture of products in the United States and such manufactured products are then exported, duties paid may be refunded as drawback provided various requirements are met. We participate in U.S. Customs' duty drawback program.

The United States Government is required by 10 U.S.C. § 2533b, Requirement to buy strategic materials critical to national security from American sources (the Specialty Metals Clause), to use domestically melted titanium in all military procurement. The law, which dates back to the Berry Amendment of 1973, is important to us in that it supports the domestic specialty metals industry. Although the Specialty Metals Clause was revised comprehensively in the 2007 Defense Authorization Act (the 2007 Act), the subject was reopened in the 2007-2008 legislative session as a result of dissatisfaction, on both sides of the debate, with how the 2007 Act was being implemented by the Department of Defense. Consequently, new provisions under the National Defense Authorization Act for Fiscal Year 2008 (2008 Act) reflect a compromise on domestic source requirements for specialty metals.

The 2008 Act provides an important clarification for the specialty metals industry. It affirms that the Specialty Metals Clause does apply to commercial off-the-shelf-items such as: specialty metals mill products like titanium bar, billet, slab, and sheet; forgings and castings of specialty metals (unless incorporated into a commercial off-the-shelf item or subassembly); and fasteners (unless incorporated into commercial off-the-shelf end items or subassemblies). As an accommodation to the concerns of military suppliers and the Department of Defense, the 2008 Act provides for a new *de minimis* exception whereby defense agencies may accept an item containing up to 2% noncompliant metal, based

on the total weight of all of the specialty metals in an item. This exception might apply, for example, to small specialty metal parts in a jet engine if the source of the parts cannot be ascertained. Finally, the 2008 Act revises the rules for granting compliance waivers when compliant materials are not available. It requires that the Department of Defense reexamine previously granted waivers (which the specialty metals industry challenged as overly broad) and amend them,

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if necessary, to comply with the 2008 Act. The 2008 Act also requires greater transparency in the use of the waiver process and requires the Department of Defense to report to Congress on the first and second anniversaries of the legislation concerning the types of items that are being procured under the new commercial off-the-shelf exception.

We believe that the compromises contained in the 2008 Act provide a fair and workable solution bridging the biggest concerns on both sides of the debate. We, together with the specialty metals industry as a whole, will be closely monitoring the implementation of the 2008 Act to see that the Specialty Metals Clause continues to ensure a reliable, domestic source of supply for products that are critical to national security.

Environmental Liabilities

We are subject to environmental laws and regulations as well as various health and safety laws and regulations that are subject to frequent modifications and revisions. While the costs of compliance for these matters have not had a material adverse impact on us in the past, it is difficult to accurately predict the ultimate effect these changing laws and regulations may have on us in the future. We continue to evaluate our obligations for environmental related costs on a quarterly basis and make adjustments in accordance with provisions of Statement of Position 96-1, *Environmental Remediation Liabilities* and SFAS No. 5, *Accounting for Contingencies*.

Based on available information, we believe our share of possible environmental-related costs is in a range from \$1.1 million to \$2.6 million in the aggregate. At June 30, 2009 and December 31, 2008, the amounts accrued for future environmental-related costs were \$1.8 million and \$2.3 million, respectively. Of the total amount accrued at June 30, 2009, \$1.5 million is expected to be paid out within one year and is included in the other accrued liabilities line of the balance sheet. The remaining \$0.2 million recorded in other noncurrent liabilities. During the six months ended June 30, 2009, we made payments totaling \$0.6 million related to our environmental liabilities.

Marketing and Distribution

We market our titanium mill and related products and services worldwide. The majority of our sales are made through our own sales force. Our sales force has offices in Niles, Ohio; Houston, Texas; Los Angeles, California; Hartford, Connecticut; and Montreal, Canada. Technical Marketing personnel are available to service these offices. Customer support for new product applications and development is provided by our Customer Technical Service personnel at each business unit, as well as the corporate-level through our Technical Business Development and Research and Development organizations-located in Pittsburgh, Pennsylvania and Niles, Ohio, respectively. Sales of the Fabrication and Distribution Groups products and services are made by our corporate-level sales force and personnel at the locations set forth below. Fabrication Group locations include: Houston, Texas; Washington, Missouri; and Montreal, Canada. Distribution Group facilities are located at Garden Grove, California; Windsor, Connecticut; Sullivan, Missouri; Birmingham, England; Rosny-Sur-Siene, France; and Guangzhou, China.

Research, Technical, and Product Development

We conduct research, technical, and product development activities for both the Titanium Group and the Fabrication Group. Research includes not only new product development, but also new or improved technical and manufacturing processes. We are conducting research for the U.S. Army and has entered into discussions with both the U.S. Army and the Department of Defense on other research projects. We are currently partnered with American Engineering and Manufacturing Company (AEM) to develop lower cost titanium production for the U.S. Army Industrial base under the Advanced Materials and Processes for Armament Structures Program. AEM was awarded research and development funds in the fiscal year 2008 from the Department of Defense Appropriations bills in the amount of \$5.6 million.

We also participate in several other federal and state-funded research projects to develop lower cost titanium, advanced melting technology, and as cast extrusions, as well as improved flat product research. The principal goals of our research program, aside from U.S. Army and Department of Defense projects, are

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advancing technical expertise in the production of titanium mill and fabricated products and providing technical support in the development of new markets and products. Our research, technical, and product development costs totaled \$2.1 million in 2008, \$1.7 million in 2007, and \$1.5 million in 2006.

Patents and Trademarks

We possess a substantial body of technical know-how and trade secrets and owns a number of U.S. patents applicable primarily to product formulations and uses. We consider our expertise, trade secrets, and patents important to the conduct of its business, although no individual item is currently considered to be material to our current business.

Employees

At July 31, 2009, we and our subsidiaries employed 1,546 persons, 594 of whom were classified as administrative and sales personnel. Of the total number of employees, 686 employees were in the Titanium Group, 641 were in the Fabrication Group, 160 were in the Distribution Group and 59 were located at RTI corporate headquarters.

The United Steelworkers of America represents 340 of the hourly, clerical and technical employees at our plant in Niles, Ohio. The current Labor Agreement entered into on December 1, 2004 with the United Steelworkers of America was originally set to expire on January 31, 2010, however, on February 2, 2008, we agreed with the union to an extension through June 30, 2013. Hourly employees at the RTI Tradco facility in Washington, Missouri are represented by the International Association of Machinists and Aerospace Workers. There are 151 employees in the bargaining unit. The current labor contract with the International Association of Machinists and Aerospace Workers expires on February 19, 2011. No other of our employees are represented by a union.

Table of Contents**PRINCIPAL EXECUTIVE OFFICERS**

Listed below are the executive officers of the Company, together with their ages and titles as of September 4, 2009.

Name	Age	Title
Dawne S. Hickton	51	Vice Chairman and Chief Executive Officer
Michael C. Wellham	43	President and Chief Operating Officer
Stephen R. Giangiordano	51	Executive Vice President of Technology and Innovation
William T. Hull	51	Senior Vice President and Chief Financial Officer
William F. Strome	54	Senior Vice President - Strategic Planning and Finance
Chad Whalen	35	Vice President, General Counsel and Secretary

Biographies

Ms. Hickton was appointed Vice Chairman and Chief Executive Officer in April 2007. Prior thereto, she served as Senior Vice President and Chief Administrative Officer from July 2005, Secretary from April 2004, and Vice President and General Counsel from June 1997. Prior to joining the Company, Ms. Hickton had been an Assistant Professor of Law at The University of Pittsburgh School of Law, and was employed at U.S. Steel Corporation from 1983 through 1994.

Mr. Wellham was appointed President and Chief Operating Officer in April 2007. Prior thereto, he served as Senior Vice President, Fabrication & Distribution Group from September 2002 and Vice President, Fabrication & Distribution Group from January 1999.

Mr. Giangiordano was appointed Executive Vice President of Technology and Innovation in July 2008. Prior thereto, he served as Executive Vice President from April 2007, Senior Vice President, Titanium Group from October 2002 and Vice President, Titanium Group from July 1999. Prior to that assignment, he served as Vice President, Technology from 1994.

Mr. Hull was appointed Senior Vice President and Chief Financial Officer in April 2007. Prior thereto, he served as Vice President and Chief Accounting Officer from August 2005. Prior to joining the Company, Mr. Hull served as Corporate Controller of Stoneridge, Inc., of Warren, Ohio, where he was employed from 2000. Mr. Hull is a Certified Public Accountant.

Mr. Strome was appointed Senior Vice President - Strategic Planning and Finance in November 2007. Prior to joining the Company, Mr. Strome served as a Principal focusing on development projects at Laurel Mountain Partners, L.L.C. Prior to joining Laurel in 2006, Mr. Strome served as Senior Managing Director and Group Head, Investment Banking at the investment banking firm Friedman, Billings, Ramsey & Co., Inc. From 1981 to 2001, Mr. Strome was employed by PNC Financial Services Group, Inc. in various legal capacities and most recently managed PNC's corporate finance advisory activities and its mergers and acquisitions services.

Mr. Whalen was appointed Vice President, General Counsel and Secretary in February 2007. Mr. Whalen practiced corporate law at the law firm of Buchanan Ingersoll & Rooney PC from 1999 until joining the Company.

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DESCRIPTION OF COMMON STOCK

Please read the information discussed under the heading "Description of RTI Capital Stock" beginning on page 9 of the accompanying prospectus. Our authorized capital stock consists of 50,000,000 shares of Common Stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, without par value, the rights and preferences of which may be established from time to time by our board of directors. As of August 31, 2009, 23,119,871 shares of Common Stock (excluding shares held in treasury) were outstanding. No shares of preferred stock were issued or outstanding as of August 31, 2009.

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**CERTAIN MATERIAL UNITED STATES FEDERAL INCOME AND ESTATE TAX CONSEQUENCES TO
NON-U.S. HOLDERS**

The following summary describes the material U.S. federal income and estate tax consequences of the acquisition, ownership and disposition of our Common Stock to non-U.S. holders (as defined below) that acquire our Common Stock for cash pursuant to this offer. The summary is based on the Internal Revenue Code of 1986, as amended (the Code), Treasury Regulations, judicial decisions, published positions of the Internal Revenue Service (IRS), and other applicable authorities, all as in effect as of the date hereof and all of which are subject to change or differing interpretations (possibly with retroactive effect). The discussion does not address all of the tax consequences that may be relevant to a particular non-U.S. holder subject to special treatment under U.S. federal income tax laws. In addition, this discussion does not address any state, local or non-U.S. tax consequences. This summary deals only with non-U.S. holders who hold our Common Stock as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment). No IRS ruling has been or will be sought regarding any matter discussed herein. Holders are urged to consult their tax advisors as to the particular U.S. federal tax consequences to them of the acquisition, ownership and disposition of our Common Stock, as well as the effects of state, local and non-U.S. tax laws.

A non-U.S. holder is a person or entity that is a beneficial owner of our Common Stock and that, for U.S. federal income tax purposes, is a:

non-resident alien individual, other than certain former citizens and residents of the United States subject to tax as expatriates,

a corporation or entity taxable as a corporation for U.S. federal income tax purposes that was created under non-U.S. law, or

an estate or trust that is not taxable in the U.S. on its worldwide income.

If a partnership (including any entity treated as a partnership or other pass-through entity for U.S. federal income tax purposes) is a holder of our Common Stock, the U.S. federal income tax treatment of a partner in the partnership generally will depend on the status of the partner and the activities of such partnership. Partners and partnerships should consult their tax advisors as to the particular U.S. federal income tax consequences of acquiring, owning and disposing of our Common Stock applicable to them.

Distributions

Distributions on our Common Stock will constitute dividends for U.S. federal income tax purposes to the extent such distributions are made out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. We will be required to withhold U.S. federal withholding tax at a rate of 30% (or at a lower rate under an applicable income tax treaty that allows for a reduced rate of withholding, provided that we have received proper certification, namely an applicable IRS Form W-8, that the non-U.S. holder is eligible for the reduced rate under such income tax treaty) from the gross amount of the dividends paid to a non-U.S. holder unless such dividends are effectively connected with such non-U.S. holder's conduct of a trade or business in the United States (and, in the case of tax treaties, are attributable to a permanent establishment or fixed base within the United States) and the non-U.S. holder complies with applicable certification and disclosure requirements, as described below.

Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under an applicable income tax treaty and the manner of claiming the benefits of such treaty. A non-U.S. holder that is eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

Dividends that are effectively connected with a non-U.S. holder's conduct of a trade or business in the United States (and, in the case of certain tax treaties, are attributable to a permanent establishment or fixed base within the United States) are not subject to U.S. federal withholding tax, but, unless otherwise provided by an applicable income tax treaty, are instead taxed in the manner applicable to U.S. persons. In that case, we will not have to withhold U.S. federal withholding tax if the non-U.S. holder complies with applicable

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certification and disclosure requirements (namely by completing an applicable IRS Form W-8). In addition, dividends received by a foreign corporation that are effectively connected with the conduct of a trade or business in the United States may be subject to a branch profits tax at a 30% rate, or at a lower rate if provided by an applicable income tax treaty.

Dispositions

Subject to the discussion below regarding information reporting and backup withholding, a non-U.S. holder generally will not be subject to U.S. federal income taxation with respect to gain realized on the sale, exchange or other disposition of our Common Stock, unless:

- (1) the non-U.S. holder holds our Common Stock in connection with the conduct of a U.S. trade or business (and, in the case of certain tax treaties, the gain is attributable to a permanent establishment or fixed base within the United States); or
- (2) in the case of an individual, such individual is present in the United States for 183 days or more during the taxable year in which the gain is realized and certain other conditions are met; or
- (3) we are or have been a U.S. real property holding corporation for U.S. federal income tax purposes, and such non-U.S. holder held more than 5% of our Common Stock at any time during the shorter of the five-year period ending on the date of disposition or the period that such non-U.S. holder held our Common Stock.

An individual non-U.S. holder described in (1) immediately above will be subject to tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates. If a non-U.S. holder that is a foreign corporation falls under (1) immediately above, it will be subject to tax on its net gain in the same manner as if it were a United States person as defined under the Code and, in addition, may be subject to the branch profits tax equal to 30% of its effectively connected earnings and profits or at such lower rate as may be specified by an applicable income tax treaty. An individual non-U.S. holder described in (2) immediately above will be subject to a flat 30% tax on the gain derived from the sale, which may be offset by U.S. source capital losses, even though the individual is not considered a resident of the United States. We believe that we are not, and we do not anticipate that we will become, a U.S. real property holding corporation.

Information reporting and backup withholding

A non-U.S. holder not subject to U.S. income tax may nonetheless be subject to backup withholding and information reporting with respect to distributions on our Common Stock, and with respect to amounts realized on the disposition of our Common Stock within the United States or through certain United States-related financial intermediaries, unless (except as described below) the non-U.S. holder provides the withholding agent with the applicable IRS Form W-8 (and the payor does not have actual knowledge or reason to know that the beneficial owner is a United States person as defined under the Code) or otherwise establishes an exemption. Non-U.S. holders should consult their tax advisors as to their qualifications for an exemption for backup withholding and the procedure for obtaining such an exemption. In general, we must report to the IRS and to each non-U.S. holder the dividends paid to such non-U.S. holder and the tax, if any, withheld with respect to such dividends. Copies of the information returns reporting such dividends and withholding may also be made available to the tax authorities in the country in which the non-U.S. holder resides under the provisions of an applicable income tax treaty.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may be credited against the non-U.S. holder's U.S. federal income tax liability, if any, or refunded, if the required information is furnished to the IRS in a timely manner. Non-U.S. holders should consult their

tax advisors regarding the application of the information reporting and backup withholding rules to them.

Federal estate tax

Individual Non-U.S. holders and entities the property of which is potentially includible in such an individual's gross estate for U.S. federal estate tax purposes (for example, a trust funded by such an individual and with respect to which the individual has retained certain interests or powers), should note that, absent an applicable tax treaty benefit, the Common Stock will be treated as U.S. situs property subject to U.S. federal estate tax.

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Table of Contents**UNDERWRITING**

Citigroup Global Markets Inc. and FBR Capital Markets & Co. are acting as joint book-running managers of the offering and as representatives of the underwriters named below. Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus supplement, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the number of shares set forth opposite the underwriter's name.

Underwriter	Number of Shares
Citigroup Global Markets Inc.	
FBR Capital Markets & Co.	
KeyBanc Capital Markets Inc.	
PNC Capital Markets LLC	
Total	5,000,000

The underwriting agreement provides that the obligations of the underwriters to purchase the shares included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriters are obligated to purchase all the shares (other than those covered by the over-allotment option described below) if they purchase any of the shares.

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount from the initial public offering price not to exceed \$ per share. If all the shares are not sold at the initial offering price, the underwriters may change the offering price and the other selling terms.

If the underwriters sell more shares than the total number set forth in the table above, we have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to 750,000 additional shares at the public offering price less the underwriting discount. The underwriters may exercise the option solely for the purpose of covering over-allotments, if any, in connection with this offering. To the extent the option is exercised, each underwriter must purchase a number of additional shares approximately proportionate to that underwriter's initial purchase commitment. Any shares issued or sold under the option will be issued and sold on the same terms and conditions as the other shares that are the subject of this offering.

We and our officers and directors have agreed, subject to certain exceptions, that, for a period of 90 days from the date of this prospectus supplement, we and they will not, without the prior written consent of Citigroup Global Markets Inc. and FBR Capital Markets & Co., dispose of or hedge any shares or any securities convertible into or exchangeable for our Common Stock. Citigroup Global Markets Inc. and FBR Capital Markets & Co. in their sole discretion may release any of the securities subject to these lock-up agreements at any time without notice.

The shares are listed on the New York Stock Exchange under the symbol RTI.

The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option.

	Paid by RTI International Metals, Inc.	
	No Exercise	Full Exercise
Per share	\$	\$
Total	\$	\$

We estimate that our portion of the total expenses of this offering will be \$605,000 .

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In connection with the offering, the underwriters may purchase and sell shares in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, which may include purchases pursuant to the over-allotment option, and stabilizing purchases.

Short sales involve secondary market sales by the underwriters of a greater number of shares than they are required to purchase in the offering.

Covered short sales are sales of shares in an amount up to the number of shares represented by the underwriters over-allotment option.

Naked short sales are sales of shares in an amount in excess of the number of shares represented by the underwriters over-allotment option.

Covering transactions involve purchases of shares either pursuant to the over-allotment option or in the open market after the distribution has been completed in order to cover short positions.

To close a naked short position, the underwriters must purchase shares in the open market after the distribution has been completed. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

To close a covered short position, the underwriters must purchase shares in the open market after the distribution has been completed or must exercise the over-allotment option. In determining the source of shares to close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the shares. They may also cause the price of the shares to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions on the New York Stock Exchange, in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

Conflicts of Interest

As described in Use of Proceeds, we intend to use the proceeds of this offering to repay indebtedness outstanding under the term loan portion of our \$425 million credit facility. Because affiliates of some of the underwriters are lenders, and in some cases agents or managers for the lenders, under our credit facility and may receive more than 5% of the net proceeds of this offering, not including underwriting compensation, this offering is being conducted in compliance with Rule 2720 of the Financial Industry Regulatory Authority. Pursuant to that rule, the appointment of a qualified independent underwriter is not necessary in connection with this offering, as the shares have a bona fide public market (as such terms are defined in Rule 2720).

Certain of the underwriters have performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses. The underwriters may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses.

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LEGAL MATTERS

The validity of the shares of our Common Stock will be passed upon for us by Buchanan Ingersoll & Rooney PC, Pittsburgh, Pennsylvania. The underwriters have been represented in connection with this offering by Cravath, Swaine & Moore LLP, New York, New York.

EXPERTS

The Consolidated Financial Statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2008, have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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PROSPECTUS

**COMMON STOCK, PREFERRED STOCK,
DEBT SECURITIES, WARRANTS, PURCHASE CONTRACTS,
UNITS AND DEPOSITARY SHARES**

RTI International Metals, Inc. may offer common stock, preferred stock, debt securities, warrants, purchase contracts, units or depositary shares from time to time, in one or more offerings. We will provide the specific terms of any offering and securities in supplements to this prospectus. Any prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and any accompanying prospectus supplement carefully before you make your investment decision.

We may offer and sell the securities on an immediate, continuous or delayed basis directly to investors or through underwriters, dealers or agents, or through a combination of these methods.

This prospectus may not be used to sell securities unless accompanied by a prospectus supplement which will describe the method and terms of the offering.

Our common stock is listed on the New York Stock Exchange under the symbol RTI. On September 4, 2009, the closing sale price of our common stock on the New York Stock Exchange was \$20.05 per share.

Investing in our securities involves risk. See Risk Factors on page 2 of this prospectus and in the other documents that are incorporated by reference herein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is September 8, 2009.

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SUMMARY DESCRIPTION OF RTI AND THIS PROSPECTUS

RTI International Metals, Inc. is a leading U.S. producer and supplier of titanium mill products and a global supplier of fabricated titanium and specialty metal components for the national and international aerospace, defense, energy and other markets. The Company, an Ohio corporation, and its predecessors have been operating in the titanium industry since 1951. The Company conducts business in three segments: the Titanium Group, the Fabrication Group, and the Distribution Group. The Titanium Group melts, processes, and produces a complete range of titanium mill products, which are further processed by its customers for use in a variety of commercial aerospace, defense, and industrial applications. The titanium mill products consist of basic mill shapes including ingot, slab, bloom, billet, bar, plate, and sheet. The Titanium Group also produces ferro titanium alloys for steel-making customers. The Fabrication Group is comprised of companies that extrude, fabricate, machine, and assemble titanium and other specialty metal parts and components. Its products, many of which are complex engineered parts and assemblies, serve commercial aerospace, defense, oil and gas, power generation, and chemical process industries, as well as a number of other industrial and consumer markets. The Distribution Group stocks, distributes, finishes, cuts-to-size, and facilitates just-in-time delivery services of titanium, steel, and other specialty metal products, primarily nickel-based specialty alloys.

The address of our principal executive offices is Westpointe Corporate Center One, 1550 Coraopolis Heights Road, Fifth Floor, Pittsburgh, PA 15108-2973, and our telephone number at our principal executive offices is (412) 893-0026.

Unless otherwise stated or the context otherwise requires, references in this prospectus to RTI, the Company, we, our, us or similar references are to RTI International Metals, Inc. and its consolidated subsidiaries.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf registration process, RTI may, from time to time, sell securities as described in this prospectus, in one or more offerings. This prospectus provides you with a general description of the securities that RTI may offer. Each time that securities are sold, a prospectus supplement containing specific information about the terms of that offering and the particular securities will be provided. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading Where You Can Find More Information.

You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus.

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RISK FACTORS

Our business is subject to various risks and uncertainties. Any of these individual risks described below, or any number of these risks occurring simultaneously, could have a material effect on our Consolidated Financial Statements, business or results of operation. You should carefully consider these factors, as well as the other information contained in this document, when evaluating your investment in our securities.

We are subject to risks associated with global economic and political uncertainties

Like other companies, we are susceptible to macroeconomic downturns in the United States and abroad that may affect our performance and the performance of our customers and suppliers. Further, the global financial crisis may have an impact on our business and financial condition in ways that we currently cannot predict. The credit crisis and related turmoil in the global financial system has had and may continue to have an impact on our business and our financial condition. In addition to the impact that the global financial crisis has already had, we may face significant financial and operational challenges if conditions in the financial markets do not improve or continue to worsen. For example, an extension of the credit crisis to other industries (for example, the availability of financing for the purchase of commercial aircraft) could adversely impact overall demand for our products, which could have a negative effect on our revenues. In addition, our ability to access the traditional bank and capital markets may be severely restricted, which could have an adverse impact on our ability to react to changing economic and business conditions.

In addition, we are subject to various domestic and international risks and uncertainties, including changing social conditions and uncertainties relating to the current and future political climate. Changes in policy resulting from the new Presidential administration could have an adverse effect on the financial condition and the level of business activity of the defense industry or other market segments in which we participate. This may reduce our customers demand for our products and/or depress pricing of those products, resulting in a material adverse impact on our business, prospects, results of operations, revenues, and cash flows.

A significant amount of our future revenue is based on long-term contracts for new aircraft programs

We have signed several long-term contracts in recent years to produce titanium mill products and complex engineered assemblies for several new aircraft programs, including the Boeing 787, Lockheed Martin's F-35 Joint Strike Fighter or JSF, and the Airbus family of aircraft, including the A380 and the A350XWB. In order to meet the delivery requirements of these contracts, we have invested in significant capital expansion projects. Because of the current global economic slowdown and production problems experienced by many of our customers, we have experienced significant delays in these programs. Further delays or program cancellations could have a material adverse impact on our business, prospects, results of operations, revenues, cash flows, and financial standing. In addition, several of our customer contracts are take-or-pay contracts that require our customers to take a minimum amount of product in a period. As program delays continue, some of our customers may not meet their contractual minimum amount of product. While we intend to bill these customers for their contractual minimum amount, if they fail to pay as required by their contracts, we may suffer a material adverse impact on our liquidity and results of operations.

The ability to successfully expand our operations in a timely and cost effective manner

In connection with several of our long-term commercial contracts, we have undertaken several major capital expansion projects which are currently estimated to continue through 2011, including the construction of our new titanium sponge plant and titanium rolling mill and forging press facilities. Construction of the sponge plant has been delayed because of the current global economic slowdown, and may be further delayed, idled or abandoned. Our

inability to successfully complete the construction of these facilities in a timely and cost effective manner, or at all, or obtain titanium sponge (our principle raw material) from an alternative source, could have a material adverse effect on our business, financial condition, and results of operations. If we were to indefinitely delay or abandon the construction of the sponge plant, we could suffer an adverse effect on our liquidity and our ability to meet our financial covenants under our credit agreement. Further, our

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undertaking of these significant initiatives places a significant demand on management, financial and operational resources. Our success in these projects will depend upon the ability of key financial, and operational management to ensure the necessary internal and external resources are in place to properly complete and operate these facilities.

We may be affected by our ability or inability to obtain financing

Our ability to access the traditional bank or capital markets in the future for additional financing, if needed, and our future financial performance could be influenced by our ability to meet current covenant requirements associated with our existing credit agreement, our credit rating, or other factors.

The demand for our products and services may be adversely affected by demand for our customers' products and services

Our business is substantially derived from titanium mill products and fabricated metal parts, which are primarily used by our customers as components in the manufacture of their products. The ability or inability to meet our financial expectations could be directly impacted by our customers' abilities or inability to meet their own financial expectations. A continued downturn in demand for our customers' products and services could occur for reasons beyond their control such as unforeseen spending constraints, competitive pressures, rising prices, the inability to contain costs, and other domestic as well as global economic, environmental or political factors. A continued slowdown in demand by or complete loss of business from these customers could have a material impact on our results of operations and financial position, including, but not limited to, impairment of goodwill, which could be material.

A substantial amount of revenue is derived from the commercial aerospace and defense industries and a limited number of customers

More than 80% of our annual revenue is derived from the commercial aerospace and defense industries. Within those industries are a relatively small number of consumers of titanium products. Those industries have historically been highly cyclical, resulting in the potential for sudden and dramatic changes in expected production and spending that, as a partner in the supply chain, can negatively impact our operational plans and, ultimately, the demand for our products and services. Some of our customers are particularly sensitive to the level of government spending on defense-related products. Government programs are dependent upon the continued availability of appropriations which are approved on an annual basis. Sudden reductions in defense spending could occur due to economic or political changes which could result in a downturn in demand for defense-related titanium products. In addition, changes to existing defense procurement laws and regulations, such as the domestic preference for specialty metals, could adversely affect our results of operations. Many of our customers are dependent on the commercial airline industry which has shown to be subject to significant economic and political challenges due to threats or acts of terrorism, rising or volatile fuel costs, pandemics, or other outbreaks of infectious diseases, aggressive competition, global economic slowdown, and other factors. In addition, new aerospace and defense platforms under which we have a contract to supply our products may be subject to production delays which would affect the timing of the delivery of our products for such platforms. Any one or combination of these factors could occur suddenly and result in a reduction or cancellation in orders of new airplanes and parts which could have an adverse impact on our business including, but not limited to, impairment of goodwill which could be material. Neither the Company nor its customers may be able to project or plan in a timely manner for the impact of these events.

We may be subject to competitive pressures

The titanium metals industry is highly competitive on a worldwide basis. Our competitors are located primarily in the U.S., Japan, Russia, Europe, and China. Our Russian competitor, in particular, has significantly greater capacity than

us and others in our industry. Not only do we face competition for a limited number of customers with other producers of titanium products, but we also must compete with producers of other generally less expensive materials of construction including stainless steel, nickel- based high temperature and corrosion resistant alloys, and composites.

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Our competitors could experience more favorable operating conditions than us including lower raw materials costs, more favorable labor agreements, or other factors which could provide them with competitive cost advantages in their ability to provide goods and services. Changes in costs or other factors related to the production and supply of titanium mill products compared to costs or other factors related to the production and supply of other types of materials of construction may negatively impact our business and the industry as a whole. New competitive forces unknown to us today could also emerge which could have an adverse impact on our financial performance. Our foreign competitors in particular may have the ability to offer goods and services to our customers at more favorable prices due to advantageous economic, environmental, political, or other factors.

We may experience a lack of supply of raw materials at costs that provide us with acceptable margin levels

The raw materials required for the production of titanium mill products (primarily titanium sponge and scrap) are acquired from a number of domestic and foreign suppliers. Although we have long-term contracts in place for the procurement of certain amounts of raw material and have begun the process of constructing a titanium sponge plant (which has been delayed due to the current global economy), we cannot guarantee that our suppliers can fulfill their contractual obligations nor can we guarantee that the construction of our sponge plant will not be further delayed, idled or abandoned due to the global economic slowdown or other circumstances. Our suppliers may be adversely impacted by events within or outside of their control that may adversely affect our business operations. We cannot guarantee that we will be able to obtain adequate amounts of raw materials from other suppliers in the event that our primary suppliers are unable to meet our needs. We may experience an increase in prices for raw materials which could have a negative impact on our profit margins if we are unable to adequately increase product pricing, and we may not be able to project the impact that an increase in costs may cause in a timely manner. We may be contractually obligated to supply products to our customers at price levels that do not result in our expected margins due to unanticipated increases in the costs of raw materials. We may experience dramatic increases in demand and we cannot guarantee that we will be able to obtain adequate levels of raw materials at prices that are within acceptable cost parameters in order to fulfill that demand.

We are subject to changes in product pricing

The titanium industry is highly cyclical. Consequently, excess supply and competition may periodically result in fluctuations in the prices at which we are able to sell certain of our products. Price reductions may have a negative impact on our operating results. In addition, our ability to implement price increases is dependent on market conditions, often beyond our control. Given the long manufacturing lead times for certain products, the realization of financial benefits from increased prices may be delayed.

We may experience a shortage in the supply of energy or an increase in energy costs to operate our plants

We own twenty-four natural gas wells which provide some but not all of the non-electrical energy required by our Niles, Ohio operations. Because our operations are reliant on energy sources from outside suppliers, we may experience significant increases in electricity and natural gas prices, unavailability of electrical power, natural gas, or other resources due to natural disasters, interruptions in energy supplies due to equipment failure or other causes, or the inability to extend expiring energy supply contracts on favorable economical terms.

Our business could be harmed by strikes or work stoppages

Approximately 350 hourly, clerical and technical employees at our Niles, Ohio facility are represented by the United Steelworkers of America. Our current labor agreement with this union expires June 30, 2013. Approximately 160 hourly employees at our RTI Tradco facility in Washington, Missouri are represented by the International Association of Machinists and Aerospace Workers. Our current labor agreement with this union expires February 19,

2011.

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We cannot be certain that we will be able to negotiate new bargaining agreements upon expiration of the existing agreements on the same or more favorable terms as the current agreements, or at all, without production interruptions caused by a labor stoppage. If a strike or work stoppage were to occur in connection with the negotiation of a new collective bargaining agreement, or as a result of a dispute under our collective bargaining agreements with the labor unions, our business, financial condition and results of operations could be materially adversely affected.

Our business is subject to the risks of international operations

We operate subsidiaries and conduct business with suppliers and customers in foreign countries which exposes us to risks associated with international business activities. We could be significantly impacted by those risks, which include the potential for volatile economic and labor conditions, political instability, expropriation, and changes in taxes, tariffs, and other regulatory costs. We are also exposed to and can be adversely affected by fluctuations in the exchange rate of the United States Dollar against other foreign currencies, particularly the Canadian Dollar, the Euro and the British Pound. Although we are operating primarily in countries with relatively stable economic and political climates, there can be no assurance that our business will not be adversely affected by those risks inherent to international operations.

We are dependent on services that are subject to price and availability fluctuations

We often depend on third parties to provide outside material processing services that may be critical to the manufacture of our products. Purchase prices and availability of these services are subject to volatility. At any given time, we may be unable to obtain these critical services on a timely basis, at acceptable prices or on other acceptable terms, if at all. Further, if an outside processor is unable to produce to required specifications, our additional cost to cure may negatively impact our margins.

Our success depends largely on our ability to attract and retain key personnel

Much of our future success depends on the continued service and availability of skilled personnel, including members of our executive team, management, materials engineers and other technical specialists, and staff positions. The loss of key personnel could adversely affect our Company's ability to perform until suitable replacements are found. There can be no assurance that the Company will be able to continue to successfully attract and retain key personnel.

The demand for our products and services may be affected by factors outside of our control

War, terrorism, natural disasters, and public health issues including pandemics, whether in the U.S. or abroad, have caused and could cause damage or disruption to international commerce by creating economic and political uncertainties that may have a negative impact on the global economy as a whole. Our business operations, as well as our suppliers' and customers' business operations, are subject to interruption by those factors as well as other events beyond our control such as governmental regulations, fire, power shortages, and others. Although it is impossible to predict the occurrences or consequences of any such events, they could result in a decrease in demand for the Company's products, make it difficult or impossible for us to deliver products to our customers or to receive materials from our suppliers, and create delays and inefficiencies in our supply chain. Our operating results and financial condition may be adversely affected by these events.

The outcome of the U.S. Customs investigation of our previously filed duty drawback claims is uncertain

During 2007, the Company received notice from U.S. Customs indicating that certain duty drawback claims previously filed by the Company's agent, on behalf of the Company, are under formal investigation. The investigation relates to discrepancies in, and lack of supporting documentation for, claims filed through the Company's prior

drawback broker. For additional detail regarding this investigation, see Duty Drawback Investigation in Item 3. Legal Proceedings, in our Annual Report on Form 10-K for the year ended December 31, 2008. The ultimate outcome of the U.S. Customs investigation cannot be determined, however, the outcome of this investigation could have an adverse impact on our financial performance.

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We are subject to, and could incur substantial costs and liabilities under, environmental, health and safety laws.

We own and/or operate a number of manufacturing and other facilities. Our operations and properties are subject to various laws and regulations relating to the protection of the environment and health and safety matters, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, and the cleanup of contaminated sites. Some environmental laws can impose liability for all of the costs of a contaminated site without regard to fault or the legality of the original conduct. We could incur substantial costs, including fines, penalties, civil and criminal sanctions, investigation and cleanup costs, natural resource damages and third-party claims for property damage or personal injury, as a result of violations of or liabilities under environmental laws and regulations or the environmental permits required for our operations. Many of our properties have a history of industrial operations, including the use and storage of hazardous materials, and we are involved in remedial actions relating to some of our current and former properties and, along with other responsible parties, third-party sites. We have established reserves for such matters where appropriate. The ultimate costs of cleanup, and our share of such costs, however, are difficult to accurately predict and could exceed current reserves. We also could incur significant additional costs at these or other sites if additional contamination is discovered, additional cleanup obligations are imposed and/or the participation or financial viability of other responsible parties changes in the future. In addition, while the cost of complying with environmental laws and regulations has not had a material adverse impact on our operations in the past, such laws and regulations are subject to frequent modifications and revisions, and more stringent compliance requirements, or more stringent interpretation or enforcement of existing requirements, may be imposed in the future on us or the industries in which we operate. As a result, we could incur significant additional costs complying with environmental laws and regulations in the future.

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FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements. This prospectus, and the documents incorporated herein by reference, may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Additionally, we or our representatives may, from time to time, make other written or verbal forward-looking statements. In this prospectus, and the documents incorporated by reference herein, we discuss expectations regarding our business, financial condition and results of operations. Without limiting the foregoing, words or phrases such as will likely result, are expected to, will continue, is anticipated, we believe, estimate, (including the negative or variations thereof) or similar terminology, generally identify forward-looking statements. Forward-looking statements may also represent challenging goals for us. As such, they are based on current expectations and are subject to certain risks and uncertainties. We caution that undue reliance should not be placed on such forward-looking statements which speak only as of the date made. In order to comply with the terms of the safe harbor, we identify for investors important risk factors which could affect our financial performance and could cause actual results for future periods to differ materially from the anticipated results or other expectations expressed in the forward-looking statements.

Investing in our securities involves risk. Before you invest in our securities, you should carefully consider some of the factors which could cause our results to differ from those expressed in any forward-looking statement, which are set forth under the caption Risk Factors above, and in Item 1A in our most recent Form 10-K, Item 1A of Part II in our most recent Form 10-Q, and subsequent Form 10-Q and Form 10-K filings made with the SEC, each of which is incorporated by reference herein, and include:

- statements regarding the future availability and prices of raw materials,
- competition in the titanium industry,
- demand for the Company's products,
- the historic cyclicity of the titanium and commercial aerospace industries,
- changes in defense spending,
- the success of new market development,
- ability to obtain access to financial markets and to maintain current covenant requirements,
- long-term supply agreements,
- the impact of Boeing 787 production delays,
- legislative challenges to the Specialty Metals Clause,
- labor matters,
- global economic activities,

outcome of the U.S. Customs investigation,
the successful completion of our expansion projects,
our ability to execute on new business awards,
our order backlog and the conversion of that backlog into revenue, and
other statements contained herein that are not historical facts.

You should carefully consider all of the information in or incorporated by reference in this prospectus and any accompanying prospectus supplement prior to investing in our securities. Except as may be required under applicable law, we undertake no duty to update our forward-looking statements.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements or other information we file with the SEC, including the registration statement of which this prospectus is a part, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information about the operation of the SEC Public Reference Room in Washington, D.C. by calling the SEC at (800) 732-0330. Our filings are also available to the public from the website maintained by the SEC at <http://www.sec.gov>. Our common stock is listed and traded on the New York Stock Exchange, or the NYSE, under the trading symbol RTI. Our reports, proxy statements and other information can also be read at the offices of the NYSE, 20 Broad Street, New York, New York 10005.

The SEC's rules allow us to incorporate by reference information into this prospectus, which means that we can disclose important information to you by referring you to other documents that RTI has filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus. Information that RTI files later with the SEC will automatically update and supersede the information contained in documents filed earlier with the SEC or contained in this prospectus. We incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended, after the initial filing of this registration statement that contains this prospectus and prior to the time that we sell all of the securities offered by this prospectus:

our Annual Report on Form 10-K for the year ended December 31, 2008;

our Quarterly Report on Form 10-Q for the three months ended March 31, 2009;

our Quarterly Report on Form 10-Q for the three months ended June 30, 2009;

our Current Report on Form 8-K filed January 7, 2009;

our Current Report on Form 8-K filed February 3, 2009;

our Current Report on Form 8-K/A filed February 17, 2009;

our Current Report on Form 8-K filed March 4, 2009;

our Current Report on Form 8-K filed April 28, 2009;

our Current Report on Form 8-K filed August 4, 2009;

our Current Report on Form 8-K filed August 13, 2009; and

the description of the common stock contained in our Registration Statement on Form 8-A12B (Registration No. 1-14437) dated August 21, 1998, including any reports updating that description.

You may obtain copies, without charge, of documents incorporated by reference in this prospectus, by requesting them from us in writing or by telephone as follows:

RTI International Metals, Inc.
Westpointe Corporate Center One
1550 Coraopolis Heights Road, Fifth Floor
Pittsburgh, PA 15108-2973

Telephone: (412) 893-0026
www.rtiintl.com

Exhibits to the filings will not be sent, unless those exhibits have been specifically incorporated by reference in this prospectus.

General information about RTI, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments and exhibits to those reports, are available free of charge through our website at *http://www.rtiintl.com* as soon as reasonably practicable after we file them with, or furnish them to, the SEC. Other information contained on our website is not incorporated into this prospectus or our other securities filings and is not a part of these filings.

Table of Contents**USE OF PROCEEDS**

Unless otherwise indicated in the applicable prospectus supplement, we will use the net proceeds from the sale of our securities for general corporate and working capital purposes. General corporate and working capital purposes may include repayment of debt, repurchase of shares of our common stock, capital expenditures and any other purposes that may be stated in any prospectus supplement. The precise amount and timing of the application of such proceeds will depend upon our funding requirements and the availability and cost of other capital. The net proceeds may be invested temporarily or applied to repay short-term or revolving debt until they are used for their stated purpose.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth the ratio of earnings to fixed charges for the Company for the periods indicated:

	2004	Years Ended December 31,			2008	Six Months Ended June 30, 2009
		2005	2006	2007		
Ratio of Earnings to Fixed Charges(1)	(1.48)	39.05	70.42	58.10	16.01	0.20

- (1) For purposes of calculating the ratio of earnings to fixed charges, earnings consist of income from continuing operations before income taxes and adjustment for minority interests or income or loss from equity investees plus fixed charges and amortization of capitalized interest, less interest capitalized. Fixed charges consist of gross interest expensed and capitalized, and amortized premiums and discounts and capitalized expenses related to indebtedness, plus an amount equivalent to interest included in rental charges.

With respect to those ratios that indicate less than one-to-one coverage, the dollar amounts of the deficiencies are \$4,996,000 for fiscal 2004, and \$4,818,000 for the six months ended June 30, 2009.

DESCRIPTION OF SECURITIES

This prospectus contains a summary of the securities that RTI may sell. These summaries are not meant to be a complete description of each security. However, this prospectus and any accompanying prospectus supplement shall contain the material terms of the securities being offered.

DESCRIPTION OF RTI CAPITAL STOCK

The following summary of the terms of our capital stock is not meant to be complete and is qualified by reference to the relevant provisions of the laws of the State of Ohio and our Articles of Incorporation and Code of Regulations. Copies of our Articles of Incorporation and Code of Regulations are incorporated herein by reference and will be sent to you at no charge upon request. See [Where You Can Find More Information](#) above.

General

Our authorized capital stock consists 50,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, without par value, the rights and preferences of which may be established from time to time by our board of directors. As of August 10, 2009, 23,122,321 shares of common stock (excluding shares held in treasury) were outstanding. No shares of preferred stock were issued or outstanding as of August 10, 2009.

Common Stock

Holders of our common stock are entitled to one vote for each share on all matters voted upon by our stockholders, including the election of directors, and do not have cumulative voting rights, which means that the holders of a majority of shares voting for the election of directors can elect all members of our board of

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directors. Except as otherwise required by applicable law or our Articles of Incorporation or our Code of Regulations, a majority of votes cast is sufficient for any act of stockholders. Our Articles of Incorporation require the approval of the holders of shares representing two-thirds of the voting power of the corporation to effect any amendment to the Articles of Incorporation, a merger or consolidation if under Ohio law such merger or consolidation would have to be submitted to our shareholders for action, a sale or disposition of all or substantially all of our assets or a dissolution of RTI. Subject to the rights of holders of any then outstanding shares of our preferred stock, our common stockholders are entitled to receive ratably any dividends that may be declared by our board of directors out of funds legally available therefor. Holders of our common stock are entitled to share ratably in our net assets upon our dissolution or liquidation after payment or provision for all liabilities and any preferential liquidation rights of our preferred stock then outstanding. Holders of our common stock do not have preemptive rights to purchase shares of our stock. The shares of our common stock are not subject to any redemption provisions and are not convertible into any other shares of our capital stock. All outstanding shares of our common stock are fully paid and nonassessable. Our Articles of Incorporation state that no holder or any class of shares of RTI shall have any preemptive right to purchase or have offered to them for purchase any shares or other securities of RTI. The rights, preferences and privileges of holders of our common stock will be subject to those of the holders of any shares of our preferred stock we may issue in the future.

Our common stock is listed on the New York Stock Exchange under the symbol RTI.

The transfer agent and registrar for our common stock is National City Bank, N.A., which will remain as our transfer agent and registrar until October 31, 2009, at which time Computershare Trust Company, N.A., whose parent, Computershare Inc., purchased the stock transfer business of National City Bank, will become our transfer agent and registrar for our common stock.

Preferred Stock

Our board of directors may, from time to time, authorize the issuance of one or more classes or series of preferred stock without stockholder approval.

Our Articles of Incorporation permit us to issue up to 5,000,000 shares of preferred stock from time to time. Subject to the provisions of our Articles of Incorporation and limitations prescribed by law, our board of directors is authorized to adopt resolutions to issue shares, establish the number of shares, change the number of shares constituting any series, and provide or change the voting powers, designations, preferences and relative rights, qualifications, limitations or restrictions on shares of our preferred stock, including dividend rights, terms of redemption, conversion rights and liquidation preferences, in each case without any action or vote by our stockholders.

Our Articles of Incorporation establish 300,000 shares of Series A Junior Participating Preferred Stock, although no such shares are issued and outstanding.

Possible Anti-Takeover Effects.

Provisions of Ohio law relevant to RTI

We are subject to Chapter 1704 of the Ohio Revised Code, which prohibits us from entering into transactions with persons owning 10% or more of our outstanding voting power for at least three years after attaining 10% ownership unless the Board of Directors has approved the acquisitions of shares resulting in such ownership. Ohio Revised Code § 1707.043 requires a person or entity making a proposal to acquire control of us to repay us any profits made from trade in our stock within 18 months after making the control proposal.

In addition, pursuant to Section 1701.831 of the Ohio Revised Code, the acquisition of certain levels of our voting power (one-fifth or more, one-third or more, or a majority) can be made only with the prior authorization of the holders of at least a majority of our total voting power and the separate prior authorization of the holders of at least a majority of the voting power held by shareholders other than the proposed acquirer, our officers, and our directors who are also employees.

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Also, pursuant to Ohio Revised Code Section 1707.043, a public corporation formed in Ohio may recover profits that a shareholder makes from the sale of the corporation's securities within eighteen (18) months after making a proposal to acquire control or publicly disclosing the possibility of a proposal to acquire control. The corporation may not, however, recover from a person who proves in a court of competent jurisdiction either of the following:

that his, her or its sole purpose in making the proposal was to succeed in acquiring control of the corporation and there were reasonable grounds to believe that such person would acquire control of the corporation; or

such person's purpose was not to increase any profit or decrease any loss in the stock, and the proposal did not have a material effect on the market price or trading volume of the stock.

Blank Check Preferred Stock

Our Articles of Incorporation generally permit our board of directors to issue preferred stock without any action or vote of our stockholders. The rights, preferences and privileges of holders of our common stock are subject to, and may be injured by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future. The issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control including transactions in which the stockholders might otherwise receive a premium for their shares over the then current market prices.

These provisions of our Articles of Incorporation and Ohio law would be important in any attempted takeover of us and could operate, depending on how utilized by the Board of Directors, either to discourage a hostile takeover or to enable the Board of Directors to negotiate a higher price than may be initially proposed in any such situation.

DESCRIPTION OF DEBT SECURITIES

As used in this prospectus, "debt securities" means the senior and subordinated debentures, notes, bonds and other evidences of indebtedness that we issue and a trustee authenticates and delivers under an applicable indenture. This prospectus describes certain general terms and provisions of our debt securities. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. The following description of debt securities will apply to the debt securities offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of debt securities may specify different or additional terms.

We may offer under this prospectus secured or unsecured debt securities. The debt securities may be either senior debt securities, senior subordinated debt securities or subordinated debt securities. The debt securities offered hereby will be issued under an indenture between us and our trustee. The indenture will be qualified under, subject to, and governed by, the Trust Indenture Act of 1939, as amended.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and detailed or determined in the manner provided in a board of directors' resolution, an officers' certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to the series, including any pricing supplement.

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium or at a discount. We will set forth in a prospectus supplement, including any pricing supplement relating to any series of debt securities being offered, the initial offering price, the

aggregate principal amount and the following terms of the debt securities:

the title of the debt securities;

whether the debt securities will be senior or subordinated debt securities;

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the terms of any subordination provisions, including, in the case of subordinated debt securities, the aggregate amount of outstanding indebtedness senior to such subordinated debt and a brief description of any limitation on the issuance of additional senior indebtedness or a statement that there is no such limitation;

the price or prices (expressed as a percentage of the aggregate principal amount) at which we will sell the debt securities and the original issue date;

the stated maturity;

any limit on the aggregate principal amount of the debt securities;

the date or dates on which we will pay the principal on the debt securities;

the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;

the place or places where the principal of, premium, and interest on the debt securities will be payable;

the terms and conditions upon which we may redeem, retire or amortize the debt securities;

any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities;

the dates on which and the price or prices at which we will repurchase the debt securities at the option of the holders of the debt securities and other detailed terms and provisions of these repurchase obligations, if any;

provisions restricting the declaration of dividends or requiring maintenance of any asset ratio or the creation of maintenance reserves, if any;

the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;

whether the debt securities will be issued in the form of certificated debt securities or global debt securities;

the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;

the currency of denomination of the debt securities;

the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities will be made;

if payments of principal of, premium or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;

the manner in which the amounts of payment of principal of, premium or interest on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies other than that in which the debt securities are denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index or financial index;

any provisions relating to any security provided for the debt securities;

any provision regarding the type and priority of any lien securing the securities, in addition to the identification and brief description of the principal properties subject to such lien;

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any addition to or change in the events of default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;

in the case of secured debt, whether the securities being registered are to be issued on the basis of unbonded bondable property, the deposit of cash or otherwise, and the approximate amount of unbonded bondable property available as a basis for the issuance of bonds;

any provision permitting the withdrawal of cash deposited as a basis for the issuance of bonds or permitting the release or substitution of assets securing the issue;

any addition to or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;

the tax effects if debt securities are to be offered at a price such that they will be deemed to be offered at an original issue discount as defined in paragraph (a) of Section 1273 of the Internal Revenue Code or where a debt security is sold in a package with another security and the allocation of the offering price between the two securities may have the effect of offering the debt security at such an original issue discount, including yield to maturity;

any other terms of the debt securities, which may modify or delete any provision of the indenture as it applies to that series; and

any depositories, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities.

We may issue debt securities that are exchangeable and/or convertible into shares of our common stock. The terms, if any, on which the debt securities may be exchanged for and/or converted will be set forth in the applicable prospectus supplement. Such terms may include provisions for conversion, either mandatory, at the option of the holder or at our option, in which case the number of shares of common stock or other securities to be received by the holders of debt securities would be calculated as of a time and in the manner stated in the prospectus supplement.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Payment of Interest and Exchange

Each debt security will be represented by one or more global securities registered in the name of The Depository Trust Company, as Depository, or a nominee of the Depository (we will refer to any debt security represented by a

global debt security as a book-entry debt security), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a certificated debt security), as described in the applicable prospectus supplement. Except as described under **Global Debt Securities and Book-Entry System** below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities

You may transfer or exchange certificated debt securities at the trustee's office or paying agencies in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of

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certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may transfer certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the old certificate representing those certificated debt securities and either we or the trustee will reissue the old certificate to the new holder or we or the trustee will issue a new certificate to the new holder.

Global Debt Securities and Book-Entry System

Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depository, and registered in the name of the Depository or a nominee of the Depository.

The Depository has indicated it intends to follow the following procedures with respect to book-entry debt securities.

Ownership of beneficial interests in book-entry debt securities will be limited to persons that have accounts with the Depository for the related global debt security, whom we refer to as participants, or persons that may hold interests through participants. Upon the issuance of a global debt security, the Depository will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the book-entry debt securities represented by the global debt security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters or agents participating in the distribution of the book-entry debt securities. Ownership of book-entry debt securities will be shown on, and the transfer of the ownership interests will be effected only through, records maintained by the Depository for the related global debt security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to own, transfer or pledge beneficial interests in book-entry debt securities.

So long as the Depository for a global debt security, or its nominee, is the registered owner of that global debt security, the Depository or its nominee, as the case may be, will be considered the sole owner or holder of the book-entry debt securities represented by such global debt security for all purposes under the indenture. Except as described herein, beneficial owners of book-entry debt securities will not be entitled to have securities registered in their names, will not receive or be entitled to receive physical delivery of a certificate in definitive form representing securities and will not be considered the owners or holders of those securities under the indenture. Accordingly, to exercise any rights of a holder under the indenture, each person beneficially owning book-entry debt securities must rely on the procedures of the Depository for the related global debt security and, if that person is not a participant, on the procedures of the participant through which that person owns its interest.

We understand, however, that under existing industry practice, the Depository will authorize the persons on whose behalf it holds a global debt security to exercise certain rights of holders of debt securities, and the indenture provides that we, the trustee and our respective agents will treat as the holder of a debt security the persons specified in a written statement of the Depository with respect to that global debt security for purposes of obtaining any consents or directions required to be given by holders of the debt securities pursuant to the indenture.

We will make payments of principal of, and premium and interest on, book-entry debt securities to the Depository or its nominee, as the case may be, as the registered holder of the related global debt security. We, the trustee and any other agent of ours or agent of the trustee will not have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that the Depositary, upon receipt of any payment of principal of, premium or interest on a global debt security, will immediately credit participants' accounts with payments in amounts proportionate to the respective amounts of book-entry debt securities held by each participant as shown on the records of the Depositary. We also expect that payments by participants to owners of beneficial interests in book-entry debt securities held through those participants will be governed by standing customer instructions and customary

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practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in street name, and will be the responsibility of those participants.

We will issue certificated debt securities in exchange for each global debt security if the Depository is at any time unwilling or unable to continue as Depository or ceases to be a clearing agency registered under the Exchange Act, and a successor Depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days. In addition, we may at any time and in our sole discretion determine not to have any of the book-entry debt securities of any series represented by one or more global debt securities and, in that event, we will issue certificated debt securities in exchange for the global debt securities of that series. Global debt securities will also be exchangeable by the holders for certificated debt securities if an event of default with respect to the book-entry debt securities represented by those global debt securities has occurred and is continuing. Any certificated debt securities issued in exchange for a global debt security will be registered in such name or names as the Depository shall instruct the trustee. We expect that such instructions will be based upon directions received by the Depository from participants with respect to ownership of book-entry debt securities relating to such global debt security.

We have obtained the foregoing information in this section concerning the Depository and the Depository's book-entry system from sources we believe to be reliable. We take no responsibility for the Depository's performance of its obligations under the rules and regulations governing its operations.

No Protection in the Event of a Change in Control

Unless we provide otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Redemption or Repayment

If there are any provisions regarding redemption or repayment applicable to your debt security, we will describe them in the applicable prospectus supplement. We or our affiliates may purchase debt securities from investors who are willing to sell from time to time, either in the open market at prevailing prices or in private transactions at negotiated prices. Debt securities that we or they purchase may, at our discretion, be held, resold or canceled.

Covenants

Unless we provide otherwise in the applicable prospectus supplement, the debt securities will not contain any restrictive covenants restricting us or any of our subsidiaries from incurring, issuing, assuming or guaranteeing any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting us or any of our subsidiaries from entering into any sale and leaseback transactions.

Consolidation, Merger and Sale of Assets

Unless we provide otherwise in the applicable prospectus supplement, we may not consolidate with or merge into, or convey, transfer or lease all or substantially all of our properties and assets to, any person (a successor person), and we may not permit any person to merge into, or convey, transfer or lease its properties and assets substantially as an entirety to us, unless:

the successor person is a corporation, partnership, trust or other entity organized and validly existing under the laws of any United States domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture;

immediately after giving effect to the transaction and the incurrence or anticipated incurrence of debt to be incurred in connection therewith, no event of default shall have occurred under the indenture; and

certain other conditions are met.

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Events of Default

Unless we provide otherwise in the applicable prospectus supplement, event of default means, with respect to any series of debt securities, any of the following:

default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days;

default in the payment of principal of or premium, if any, on any debt security of that series when due and payable;

default in the making of any sinking fund payment, when and as due in respect of any debt security of that series;

default in the performance, or breach, of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included specifically elsewhere in the indenture or solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding debt securities of that series as provided in the indenture;

non-payment of certain other indebtedness at maturity, following expiration of all applicable grace periods;

certain events of our bankruptcy, insolvency or reorganization; and

any other event of default provided with respect to debt securities of that series that is described in the applicable prospectus supplement accompanying this prospectus.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. An event of default may also be an event of default under our bank credit agreements or other debt securities in existence from time to time and under certain guaranties by us of any subsidiary indebtedness. In addition, certain events of default or an acceleration under the indenture may also be an event of default under some of our other indebtedness outstanding from time to time.

Unless we provide otherwise in the applicable prospectus supplement, if an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing (other than certain events of our bankruptcy, insolvency or reorganization), then the trustee or the holders of not less than a majority in principal amount of the outstanding debt securities of that series may, by written notice to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of any accrued and unpaid interest, if any, of all debt securities of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, of all outstanding debt securities will become and be immediately due and payable without any declaration or other act by the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before the trustee has obtained a judgment or decree for payment of the money due, the holders of a majority in principal amount of the outstanding debt securities of that series may, subject to our having paid or deposited with the trustee a sum sufficient to pay overdue interest and

principal which has become due other than by acceleration and certain other conditions, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. For information as to waiver of defaults, see the discussion under the heading **Modification and Waiver** below. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of the discount securities upon the occurrence of an event of default and the continuation of an event of default.

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Unless we provide otherwise in the applicable prospectus supplement, the indenture will provide that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

Unless we provide otherwise in the applicable prospectus supplement, no holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series; and

the holders of at least a majority in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity, to the trustee to institute such proceeding as trustee, and the trustee shall not have received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a certificate as to compliance with the indenture. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

Unless we provide otherwise in the applicable prospectus supplement, we and the trustee may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. However, we and the trustee may not make any modification or amendment without the consent of the holder of each affected debt security then outstanding if any such amendment would have the following effects:

to change the stated maturity of the principal of, or any installment of principal of or interest on, any debt security;

to reduce the principal amount of, the rate of interest or any premium payable upon the redemption of any debt security;

to reduce the amount of the principal of an original issue discount security that would be due and payable upon a declaration of acceleration of the maturity of a debt security;

change the coin or currency in which, any debt security or any premium or interest of a debt security is payable, or impair the right to institute suit for the enforcement of any such payment on or after the stated maturity (or, in the case of redemption, on or after the redemption date);

reduce the percentage in principal amount of the debt securities of any series for which consent or waiver is required by the indenture or any supplemental indenture; or

modify any of the provisions of the indenture regarding our ability to make modifications, except to increase the percentage in principal amount of holders of debt securities required under any section of the indenture.

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Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all debt securities of that series, waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may, on behalf of the holders of all the debt securities of that series, waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Notwithstanding the above provisions, under the indenture we and the Trustee do have the ability, without the consent of or notice to any holders of debt security, when authorized by a board resolution, at any time and from time to time, to enter into one or more supplemental indentures, for any of the following purposes:

to evidence the succession of another person to the Company and the assumption by any such successor of the covenants of the Company and in the debt securities, to the extent otherwise permitted under the indenture;

to add to the covenants of the Company for the benefit of the holders of debt securities or to surrender any right or power conferred on the Company under the indenture;

to add any additional events of default;

to add to or change any of the provisions of the indenture as may be necessary to permit or facilitate the issuance of debt securities in bearer form, registrable or not registrable as to principal, and with or without interest coupons, or to permit or facilitate the issuance of debt securities in uncertificated form;

to add to, change, or eliminate any of the provisions of the indenture in respect of one or more series of debt securities, provided that any such addition, change, or elimination (i) will neither (A) apply to any debt security created prior to the execution of the supplemental indenture and entitled to the benefit of such provision nor (B) modify the rights of the holder of any such debt security with respect to such provision or (ii) will become effective only when there is no such debt security outstanding;

to establish the form or terms of any series of debt securities as permitted under the indenture;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee pursuant to the requirements of the indenture; or

to cure any ambiguity, to correct or supplement any provision of the indenture or any other supplemental indenture which may be defective or inconsistent with any other provision, or to make any other provisions with respect to matters or questions arising under the indenture, provided that such action pursuant will not adversely affect the interests of the holders of any series of debt securities in any material respect.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance.

Unless the terms of the applicable series of debt securities provide otherwise, we may be discharged from any and all obligations in respect of the debt securities of any series (except for certain obligations to register the transfer or exchange of debt securities of the series, to replace stolen, lost or mutilated debt securities of the series, and to

maintain paying agencies and certain provisions relating to the treatment of funds held by paying agents). We will be so discharged upon the deposit with the trustee, in trust, of money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations (as described at the end of this section) that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the

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debt securities of that series on the stated maturity of such payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an officers certificate and either a ruling directed to the trustee received from the United States Internal Revenue Service or an opinion of counsel based on a ruling from the United States Internal Revenue Service or a change in the applicable federal tax law, each to the effect that holders of the debt securities of such series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amount and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants.

Unless the terms of the applicable series of debt securities provide otherwise, upon compliance with certain conditions we may omit to comply with the restrictive covenants contained in the indenture, as well as any additional covenants contained in the applicable prospectus supplement.

The conditions include:

depositing with the trustee money and/or United States government obligations or, in the case of debt securities denominated in a single currency other than United States dollars, foreign government obligations, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and

delivering to the trustee an opinion of counsel or a ruling directed to the trustee received from the United States Internal Revenue Service to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax in the same amount and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Events of Default.

If we exercise our option, as described above, not to comply with certain covenants of the indenture with respect to any series of debt securities, and the debt securities of that series are declared due and payable because of the occurrence of any event of default, the amount of money and/or United States government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the event of default. However, we will remain liable for those payments.

Satisfaction and Discharge

We may discharge all our obligations under the indenture with respect debt securities of any series, other than our obligations to register the transfer of and exchange debt securities of that series, provided that:

either (a) we deliver all outstanding debt securities of that series to the trustee for cancellation; or (b) all such debt securities not so delivered for cancellation have either become due and payable or will become due and payable at their stated maturity within one year or are to be called for redemption within one year, and we have deposited with the trustee in trust an amount of cash sufficient to pay the entire indebtedness of such debt securities, including interest to the stated maturity or applicable redemption date;

we have paid all other sums then due and payable under the indenture by RTI; and

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we have delivered to the trustee an officers certificate and an opinion of counsel, each stating that all conditions precedent under the indenture relating to the satisfaction and discharge of the indenture have been complied with.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee or stockholder of RTI, as such, shall have any liability for any obligations of RTI under the debt securities, the indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder, upon RTI's issuance of the debt securities and execution of the indenture, waives and releases all such liability. The waiver and release are part of the consideration for issuance of the debt securities. Such waiver may not be effective to waive liabilities under the federal securities laws and it is the view of the SEC that such a waiver is against public policy and therefore unenforceable.

Denominations

Unless stated otherwise in the prospectus supplement for each issuance of debt securities, the debt securities will be issued in denominations of \$1,000 each or integral multiples of \$1,000.

Paying Agent and Registrar

The trustee will initially act as paying agent and registrar for the debt securities. RTI may change the paying agent or registrar without prior notice to the holders of the debt securities, and RTI may act as paying agent or registrar.

Transfer and Exchange

If a debt security is issued as a global debt security, only the depositary will be entitled to transfer and exchange the debt security as described in this subsection, since the depositary will be the sole holder of the debt security.

A holder may transfer or exchange non-global debt securities in accordance with the indenture. The registrar and the trustee may require a holder, among other things, to furnish appropriate endorsements and transfer documents, and RTI may require a holder to pay any taxes and fees required by law or permitted by the indenture. RTI is not required to transfer or exchange any debt security selected for redemption. In addition, RTI is not required to transfer or exchange any debt security for a period of 15 days before a selection of debt securities to be redeemed.

Payments

We will pay interest, principal and other amounts payable with respect to the debt securities of any series to the holders of record of these debt securities as of the record dates and otherwise in the manner specified below or in the prospectus supplement for that series.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the laws of the State of New York.

Notices

Notices to be given to holders of a global debt security will be given only to the depositary, in accordance with its applicable policies as in effect from time to time. Notices to be given to holders of debt securities not in global form will be sent by mail to the respective addresses of the holders as they appear in the trustee's records, and will be deemed given when mailed. Neither the failure to give any notice to a particular holder, nor any defect in a notice given to a particular holder, will affect the sufficiency of any notice given to another holder.

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Book entry and other indirect owners should consult their banks or brokers for information on how they will receive notices.

Information Concerning the Trustee

The Bank of New York Mellon will be the trustee under the indenture. A successor trustee may be appointed in accordance with the terms of the indenture.

The trustee under the indenture has two main roles:

First, the trustee can enforce a holder's rights against us if we default. There are some limitations on the extent to which the trustee acts on a holder's behalf.

Second, the trustee performs administrative duties for us, such as sending interest payments and notices to holders of debt securities.

The indenture and the provisions of the Trust Indenture Act incorporated by reference therein, contain certain limitations on the rights of the trustee, should it become a creditor of us, to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The trustee will be permitted to engage in other transactions; however, if it acquires any conflicting interest (within the meaning of the Trust Indenture Act), it must eliminate such conflicting interest or resign.

The prospectus supplement for debt securities will describe any material relationships we may have with the trustee.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase our debt or equity securities or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

DESCRIPTION OF PURCHASE CONTRACTS

We may issue purchase contracts for the purchase or sale of:

debt or equity securities issued by us or securities of third parties, a basket of such securities, an index or indices of such securities or any combination of the above as specified in the applicable prospectus supplement;

currencies; or

commodities.

Each purchase contract will entitle the holder thereof to purchase or sell, and obligate us to sell or purchase, on specified dates, such securities, currencies or commodities at a specified purchase price, which may be based on a formula, all as set forth in the applicable prospectus supplement. We may, however, satisfy our obligations, if any,

with respect to any purchase contract by delivering the cash value of such purchase contract or the cash value of the property otherwise deliverable or, in the case of purchase contracts on underlying currencies, by delivering the underlying currencies, as set forth in the applicable prospectus supplement. The applicable prospectus supplement will also specify the methods by which the holders may purchase or sell such securities, currencies or commodities and any acceleration, cancellation or termination provisions or other provisions relating to the settlement of a purchase contract.

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The purchase contracts may require us to make periodic payments to the holders thereof or vice versa, which payments may be deferred to the extent set forth in the applicable prospectus supplement, and those payments may be unsecured or prefunded on some basis. The purchase contracts may require the holders thereof to secure their obligations in a specified manner to be described in the applicable prospectus supplement. Alternatively, purchase contracts may require holders to satisfy their obligations thereunder when the purchase contracts are issued.

DESCRIPTION OF UNITS

As specified in the applicable prospectus supplement, we may issue units consisting of one or more purchase contracts, warrants, debt securities, shares of preferred stock, shares of common stock or any combination of such securities.

DESCRIPTION OF DEPOSITARY SHARES

As specified in the applicable prospectus supplement, we may issue fractional interests in shares of preferred stock, rather than shares of preferred stock, containing such rights and subject to such terms and conditions as we may specify. If we exercise that option, we will provide for a depositary to issue receipts for depositary shares, each of which will represent a fractional interest in a share of preferred stock. The shares of preferred stock underlying the depositary shares will be deposited under a separate deposit agreement between us and a bank or trust company depositary that has its principal office in the U.S. The prospectus supplement will include the name and address of the depositary.

PLAN OF DISTRIBUTION

We may sell securities in one or more of the following ways from time to time:

to or through underwriters or dealers;

by ourselves directly;

through agents; or

through a combination of any of these methods of sale.

The prospectus supplements relating to an offering of offered securities will set forth the terms of such offering, including:

the name or names of any underwriters, dealers or agents;

the purchase price of the offered securities and our proceeds from the sale;

any underwriting discounts and commissions or agency fees and other items constituting underwriters' or agents' compensation; and

any initial public offering price, any discounts or concessions allowed or reallocated or paid to dealers and any securities exchanges on which such offered securities may be listed.

Any initial public offering prices, discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

If underwriters are used in the sale, the underwriters will acquire the offered securities for their own account and may resell them from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The offered securities may be offered either to the public through underwriting syndicates represented by one or more managing underwriters or by one or more underwriters without a syndicate. Unless otherwise set forth in a prospectus supplement, the obligations of the underwriters to purchase any series of securities will be subject to certain

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conditions precedent, and the underwriters will be obligated to purchase all of such series of securities, if any are purchased.

In connection with underwritten offerings of the offered securities and in accordance with applicable law and industry practice, underwriters may over-allot or effect transactions that stabilize, maintain or otherwise affect the market price of the offered securities at levels above those that might otherwise prevail in the open market, including by entering stabilizing bids, effecting syndicate covering transactions or imposing penalty bids, each of which is described below.

A stabilizing bid means the placing of any bid, or the effecting of any purchase, for the purpose of pegging, fixing or maintaining the price of a security.

A syndicate covering transaction means the placing of any bid on behalf of the underwriting syndicate or the effecting of any purchase to reduce a short position created in connection with the offering.

A penalty bid means an arrangement that permits the managing underwriter to reclaim a selling concession from a syndicate member in connection with the offering when offered securities originally sold by the syndicate member are purchased in syndicate covering transactions.

These transactions may be effected on the NYSE, in the over-the-counter market, through other national or foreign securities exchanges, or otherwise. Underwriters are not required to engage in any of these activities, or to continue such activities if commenced.

If a dealer is used in the sale, we will sell such offered securities to the dealer, as principal. The dealer may then resell the offered securities to the public at varying prices to be determined by that dealer at the time for resale. The names of the dealers and the terms of the transaction will be set forth in the prospectus supplement relating to that transaction.

We may sell offered securities directly to one or more institutional purchasers, or through agents designated by us from time to time, at a fixed price or prices, which may be changed, or at varying prices determined at the time of sale. Any agent involved in the offer or sale of the offered securities in respect of which this prospectus is delivered will be named, and any commissions payable by us to such agent will be set forth, in the prospectus supplement relating to that offering. Unless otherwise indicated in such prospectus supplement, any such agent will be acting on a best efforts basis for the period of its appointment.

Underwriters, dealers and agents may be entitled under agreements entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments that the underwriters, dealers or agents may be required to make in respect thereof. Underwriters, dealers and agents may be customers of, engage in transactions with, or perform services for us and our affiliates in the ordinary course of business.

Each of the securities issued hereunder will be a new issue of securities, may have no prior trading market, and may or may not be listed on a national or foreign securities exchange. Any underwriters to whom we sell securities for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot assure you that there will be a market for the offered securities.

INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Company's Code of Regulations effectively provide that the Company, to the full extent permitted by Section 1701.13 of the Ohio Revised Code, as amended from time to time (Section 1701.13), shall indemnify all directors and officers of the Company and may indemnify all employees, representatives and other persons as permitted pursuant thereto. In addition, the Company and each of its officers and directors have executed Indemnification Agreements which provide that the Company will hold harmless and indemnify such officer or director to the extent permitted by the Ohio General Corporation Law or other statutory provisions authorizing or permitting such indemnification; provided that no indemnity will be paid (1) except to the extent the losses exceed the amount of losses covered by any applicable directors and officers liability

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insurance; (2) in respect to remuneration if it shall be determined by a final judgment or other final adjudication that such remuneration was in violation of law; (3) on account of any suit in which judgment is rendered against such indemnitee for an accounting of profits made from the purchase or sale of securities pursuant to Section 16(b) of the Securities Exchange Act of 1934 and amendments thereto or similar provisions of any federal, state or local statutory law; (4) on account of the indemnitee's act or omission being finally adjudged to have involved deliberate intent to cause injury to the Company or reckless disregard for the best interests of the Company; or (5) if a final decision by a Court having jurisdiction in the matter determines that such indemnification is not lawful.

Section 1701.13 of the Ohio Revised Code permits a corporation to indemnify its officers, directors and employees (other than in certain cases involving bad faith, negligence or misconduct) from and against any and all claims and liabilities to which he or she may become subject by reason of his or her position, or acts or commissions in such position, including reasonable costs of defense and settlements (except in connection with shareholder derivative suits, where indemnification is limited to the costs of defense). Ohio law also permits corporations to provide broader indemnification than that provided by statute, and as a result, we have entered into a separate indemnification agreement with our directors and certain officers to provide additional indemnification rights to them.

RTI maintains insurance against liabilities under the Securities Act for the benefit of its officers and directors.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act is therefore unenforceable.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to RTI's Annual Report on Form 10-K for the year ended December 31, 2008 have been so incorporated in reliance on such reports of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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5,000,000 Shares

RTI International Metals, Inc.

Common Stock

PRELIMINARY PROSPECTUS SUPPLEMENT

, 2009

Citi

FBR Capital Markets

**KeyBanc Capital Markets
PNC Capital Markets LLC**