PROFILE 2017

American Iron and Steel Institute



Cover photo: Pixaby/Public Domain



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A Message from AISI President and CEO Thomas J. Gibson

In the pages that follow, you will find a comprehensive overview of the North American steel industry: who we are, the achievements of our organization and profiles of our member companies and their workers. We also outline some of the highlights of the steel industry's commitment to job creation, fair trade, tax reform, energy and environmental sustainability and robust infrastructure. *The Profile of the American Iron and Steel Institute 2017* shows why steel is — and must remain — the backbone of our nation's economy and a fundamental aspect of people's everyday lives.

High-strength and versatile, steel is the material of choice for many key markets and customer sectors. The automotive, construction, container, transportation and infrastructure, energy and national security sectors all depend on steel to be competitive in the global marketplace. As an industry, we cannot permit the progress we have made and the innovations we have achieved to be undermined by unfair trading practices and global steel overcapacity.

AISI has played an integral role in shaping policy, advocating for a level playing field for steel and bringing global steel groups and allied associations together to turn obstacles into opportunities. We are heartened by the tremendous strides we have made and look forward to continuing strong and effective communication and collaboration with Congress and the Administration, to ensure steel remains a pillar of our economy.

More information on our public policy priorities can be found at www.steel.org/public-policy/.

Learn about our industry and rich history by visiting our web page at www.steel.org and joining our outreach activities in the "Make Your Voice Heard" tab. You can also follow us on Facebook or on Twitter (@AISISteel).

Sincerely,

Chimas J. Gilson

THOMAS J. GIBSON President and CEO, American Iron and Steel Institute (AISI)



American Steel—Strength for our Future

The American steel industry continues to be a cornerstone of the American economy.

The North American steel industry is cutting-edge, robust and remains one of the most iconic symbols of manufacturing in America. Steel is in the foundation of our skyscrapers and bridges and it is a vital part of our economy. Many of today's greatest landmarks—the Golden Gate Bridge, One World Trade Center and the St. Louis Gateway—were built using steel. Steel evokes the sense of history, strength and determination that built—and continues to build—a strong America.

Not only is steel an essential material in these American treasures, it is fundamental to American society and our modern way of life. Our nation's energy supply, transportation systems, urban centers, clean water and safe food supply all depend on steel. Innovation and technology have transformed America's 21st century steel industry into a world leader in quality, performance and sustainability.

Golden Gate Bridge, San Francisco, CA. Photo courtesy of Pixaby/Public Domain



Steel: Building a Sustainable Future

Steel is vital to a modern, sustainable society. The same steel that enables manufacturers to make lighter, more fuel-efficient vehicles and taller, safer structures is also the most continuously recycled material in the world. While competing materials focus their sustainability claims on specific phases of product application, steel's superior sustainability performance minimizes environmental impact when measured through the entire life cycle.

Steel's contributions to helping achieve the triple bottom line of environmental, economic and societal sustainability make it vital to achieving the needs of today without impacting society's ability to meet the needs of the future. For example:



Photo courtesy of TimkenSteel Corp

- The steel industry is fundamental to the manufacturing sector and to the overall North American economy—directly and indirectly supporting almost one million U.S. jobs.
- The steel industry is critical to daily life, domestic infrastructure and national security, providing for more fuel-efficient, safe cars, innovating infrastructure with lighter utility poles and bridges, lowering energy consumption and costs with steel roofing and giving access to nutrition in times of emergency and financial need.
- Steel advances the quality of life North Americans enjoy through innovation and proven performance through five-star safety rated auto bodies, durable framing for buildings that holds up in high winds, earthquakes and fire and eliminating food waste with pre-measured packaging with a long, stable shelf-life.
- Codes and standards for steel construction enable designers and builders to utilize more cost-effective and efficient practices, which ultimately improves stakeholders' bottom line.
- The steel industry is actively dedicated to meeting society's needs and advancing environmental stewardship, achieving a 31 percent reduction in energy intensity and a 36 percent reduction in greenhouse gas intensity since 1990.
- When looking at the energy-intensive production processes of competing materials in the auto sector, vehicles using high-strength steels provide significant reduction in emissions.



Photo courtesy of Nucor Corporation



Recycling

According to the Steel Recycling Institute (SRI), steelmaking furnaces consumed nearly 70 million tons of domestic steel scrap. All steel is 100 percent recyclable and more steel is recycled each year than aluminum, copper, paper, glass and plastic combined.

Steel is the engine that also drives the recycling of many other consumer goods, as evidenced by the high recycling rates of appliances (88 percent), steel containers (70 percent), structural steel (98 percent) and construction reinforcement steel (71 percent).

As a result of the steel industry's commitment to sustainability, we are aggressively seeking ways to reduce our environmental footprint while producing the advanced and highly recyclable steel that our economy needs. A helpful tool the industry is using as part of this process is the Life Cycle Analysis (LCA) approach, which is essential to measuring the real environmental impact of a material. Among other things, LCA considers the total environmental impacts generated by the production, as well as use and end-of-life (recycling or disposal) phases of a product. Steel has life cycle advantages over competing materials because of its relatively low energy use, high recyclability, conservation of natural resources and the extensive reuse of by-products.

Global Leader in Labor Productivity

The steel industry directly employs nearly 140,000 people in the United States, and directly or indirectly supports nearly one million U.S. jobs. Labor productivity has seen a five-fold increase since the early 1980s, going from an average of 10.1 man-hours per finished ton to an average of 2.0 man-hours per finished ton of steel in 2016. Many North American plants are producing a ton of finished steel in less than one man-hour. These achievements are only possible through a highly skilled workforce. Member companies of the American Iron and Steel Institute (AISI) are committed to continuous improvement in safety and health and to achieving an injury-free workplace.

Despite such strong performance by the steel industry and its workforce, American steelmakers' ability to compete globally is being threatened by nations unwilling to abide by American trade laws and international trade rules set by the World Trade Organization (WTO). Many of these steel industries are owned and/or subsidized by foreign governments. Nations that habitually circumvent and evade U.S. antidumping and countervailing duty laws to send unfairly traded imports into our market must face consequences. To counter such foreign unfair trade practices, the United States must establish and enforce trade policies that will truly level the international playing field for all manufacturers.

Currency manipulation is an example of a trade-distorting practice that harms U.S. steel producers and workers by keeping the prices of exported goods artificially low compared to similar goods from the United States and our trading partners.



The U.S. steel industry is in the top tier of labor productivity worldwide at an average of 2.0 manhours per ton of steel produced, with many facilities producing a ton of steel in less than one man-hour.

Photo courtesy of TimkenSteel Corporation

While the American steel industry is highly competitive, utilizing state-of-the-art equipment and investing in new technologies, steel producers in North America continue to be adversely impacted by a flood of cheap, unfairly subsidized and dumped imports from a number of countries on a wide range of product categories. While overall import levels have declined, due to trade remedy provisions and some successful trade cases, the impact continues as imports capture near-record levels of market share and domestic producers remain well below historic levels of capacity utilization.

A major cause of the steel import surge was global steel industry overcapacity, especially in China. The Organization for Economic Cooperation and Development (OECD) estimates that there is at least 700 million metric tons of excess steel capacity globally today, with more than half coming from China alone.

China has claimed that based on its protocol of accession, WTO members must now treat it as a market economy in antidumping investigations. Recently, the Chinese government requested consultations with the U.S. government at the WTO regarding the fact that the United States continues to treat China as a nonmarket economy. U.S. law sets forth six statutory factors for determining whether China or any other country operates as a market economy. Given the



Photo courtesy of United States Steel Corporation

significant role of the Chinese government in many key aspects of its economy, and especially in its state-owned and controlled steel sector, there can be no question that China today remains a non-market economy. If China were granted market economy status before it is truly a market economy, the antidumping law will no longer provide effective relief against unfairly traded Chinese imports.

American manufacturers, including U.S. steelmakers, can compete with anyone in the world, but we cannot compete with governments. That is why AISI consistently urges our government leaders to enact policies that promote and restore manufacturing in our country and create millions of new jobs by investing in infrastructure, promoting a tax structure that encourages investment, addressing excessive regulatory burdens, achieving domestic energy self-sufficiency and strongly enforcing our trade laws.

The North American steel industry consists of world-class companies that are internationally competitive.



Photo courtesy of Tenaris

Steel's Presence Throughout America

Steel has long been considered the backbone of the American manufacturing sector, providing an essential material for downstream manufacturers in the automotive, energy, machinery and equipment, container, appliance and rail industries. Steel is a critical building material for the nation's energy, transportation and water infrastructure and for commercial and residential construction. In addition, steel products are a critical component in virtually every military platform and are essential to our national defense.

The North American steel industry consists of world-class companies that are internationally competitive. In the second decade of the 21st century, the industry has confronted issues ranging from challenging market conditions to high levels of imports. In 2016, apparent steel demand declined for the second year in a row, but industry shipments stabilized. The following is a summary of selected 2016 statistics for the American steel sector.

Machinery and Equipment Energy Other 9% 6% 3% Automotive 27% Construction Container National -43% 4% Defense Appliances and 5% Homeland Security 3%

2016 Steel Shipments* by Market Classification

2016 U.S. Steel Industry STATISTICAL HIGHLIGHTS

Steel shipments	86.5 million tons
Imports (finished)	26.3 million tons
Exports	9.3 million tons
Apparent steel demand	103.6 million tons
Direct employment	138,700*

Source: American Iron and Steel Institute *Based on U.S. Department of Labor 2016 December monthly employment data

Source: American Iron and Steel Institute *Estimated percentages



Photo courtesy of ArcelorMittal

Energy

Energy is of critical importance to the North American steel industry, as the production of steel is inherently energy intensive. The industry consumes substantial amounts of electricity, natural gas and coal and coke to make our products and energy is generally 20 percent or more of the cost of producing a ton of steel.

The American steel industry continues to increase energy efficiency and is leading the way by effectively setting the bar for steel industry efficiency worldwide. Our industry has made tremendous gains in reducing energy usage, as well as our environmental footprint, in recent decades. The domestic steel industry has voluntarily reduced its energy intensity by 31 percent since 1990 and the U.S. Department of Energy indicated that the American industry has the lowest energy intensity of any major steel-producing nation. The availability and reliability of supplies of these types of energy are essential to our industry's international competitiveness, especially as steelmakers in competitor nations often receive subsidized energy.

The products made by the steel industry are also essential to the energy sector. Whether it is oil country tubular goods (OCTG) and line pipe for oil and gas production and transportation, key materials for electricity generation and transmission or critical components for wind and solar energy, steel makes all forms of energy possible.

One particular key development in the last few years is the discovery and increased production of oil and natural gas from domestic shale formations. Affordable natural gas is presenting all steelmakers with new options for making their products more efficiently and is providing expanded markets for steel pipe and tube products that are essential to the production and transmission of natural gas and oil. The production of shale-based oil and natural gas is leading to significant investments and job creation across the United States.



Photo courtesy of Steel Market Development Institute

Automotive

North American automotive manufacturers produced more than 17.74 million vehicles in 2016, with forecasts calling for continued growth. Aggressive regulations enacted in 2012 require fuel economy to double by 2025 to 54.5 miles per gallon (mpg), creating intense materials competition as automakers look to make vehicles lighter to help meet the new regulations.

Advanced high-strength steels (AHSS) provide the properties automakers need to achieve their future fuel economy targets and are being rapidly adopted while our industry accelerates the development of new grades with even higher strength and formability. The Steel Market Development Institute (SMDI), a business unit of AISI, leads aggressive projects with our customers on optimal use of these materials to maximize the steel content in new vehicles as quickly as possible.

AHSS, combined with innovative auto manufacturing methods like tailor rolling and tailor welding, enables steel to achieve weight reduction levels nearly equivalent to those of alternative materials and at a higher value than alternative materials.

The goal of the SMDI automotive program is to keep steel the material of choice in body and chassis applications through its advantages in performance, mass reduction, sustainability and value.

Automotive Communications Program

The truck and SUV segment of the automotive market is where materials competition is most intense as

higher levels of weight reduction are needed to meet new fuel economy targets by 2025. Early in 2014, SMDI launched an enhanced automotive communications program highlighting the strength, durability, sustainability and mass reduction possible with AHSS. The program is aimed at materials decision makers and influencers, as well as national and trade media, and includes regional advertising, customer marketing activities and social media outreach.

Since the program's launch, the strategies have helped maintain steel's position as the automotive material of choice while strengthening SMDI's relationship with the automotive industry, media and consumers nationally and within SMDI's target markets. Steel Matters: Demand Nothing Less reminds audiences of the role AHSS plays in the automotive industry's efforts to meet federally mandated fuel economy emissions and safety standards in the coming years. The program's main objective continues to be positioning AHSS as the highest-value material and the benchmark customers and consumers should use to measure other lightweighting choices.

SMDI has established a robust presence at key events drawing in customer and consumer audiences through advertising, media relations, speaking opportunities and social media. For the 2017 fiscal year, SMDI will continue to expand our target auto shows and media-focused events across these regions with a strong focus on life cycle assessment and sustainability.



High-strength steel accounts for 72 percent of 5-Star Chrysler Pacifica minivan's body structure.

Photo courtesy of Steel Market Development Institute



Photo courtesy of devrouax & purnell architects and Populous

Nationals Park in Washington, D.C., is the first Major League Baseball stadium to earn LEED certification and contains 7,800 tons of steel.

NATIONALS PARK

Recycled Content Materials

Extracting raw materials to make new building products is not only harmful to the local habitat, it rapidly depletes the world's finite resources. Products with recycled contentsuch as steel - were chosen for the Ballpark to reduce the amount of raw material needed.

Construction

The National Institute of Standards and Technology notes that "steel has become one of the most reliable, most used and most important materials of the age." As an advanced engineered material, steel is the material of choice by engineers and architects because of its strong performance characteristics, reliability, versatility in design, consistency as a product and "green" profile.

Residential and Commercial Construction

AISI-generated building standards have been incorporated into the most recent editions of the International Building Code (IBC) and the International Residential Code (IRC) and are used throughout the world. Steel continues to provide a proven environmentally responsible solution for meeting green building requirements in standards such as the International Green Construction Code (IgCC), ASHRAE 189.1, the National Green Building Standard (ICC-700) and green building rating systems like the U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED).



Bridges

Bridges connect us as a nation. We need them to transport billions of tons of freight each year from coast-to-coast.

Yet the Federal Highway Administration (FHWA) estimates that nearly nine percent of America's more than 600,000 bridges are either structurally deficient or functionally obsolete. The American Society of Civil Engineers (ASCE) *2017 Infrastructure Report Card* graded the nation's bridges with a "C+" and noted the most recent estimate puts the nation's backlog of bridge rehabiliation needs at \$123 billion.

Repairing and/or replacing these bridges with modern steel bridge designs must be a national priority. Steel bridges offer owners practical design and accelerated bridge construction solutions which are durable, cost-effective and offer ease of maintenance and construction. A free, web-based design tool developed by SMDI and other partners of the Short Span Steel Bridge Alliance—eSPAN140—allows users to download customized steel bridge designs in three easy steps in less than five minutes, saving them significant time and costs. More than 2,500 eSPAN140 preliminary designs have been generated since 2012.

America's bridges are utilizing bridge technologies that help save taxpayer dollars as we rebuild our infrastructure over the next two decades. Designers and engineers can specify new high-performance steels (HPS) developed by member companies with the Office of Naval Research and FHWA. These steels have superior toughness and can be welded with little or no preheat. Today, there are more than 500 HPS bridges in use in 47 states.



Photo courtesy of SSAB Americas

Transportation/Infrastructure

In a globalized economy, America's infrastructure is important to our competitive edge. A globally competitive economy depends on an effective and efficient transportation infrastructure. The American Road and Transportation Builders Association reports that the U.S. transportation construction industry generates more than \$500 billion in total annual economic activity for the nation and sustains nearly 4 million jobs—the equivalent of 1.6 percent of the nation's gross domestic product (GDP). AISI supports strong public policy initiatives that equip the manufacturing sector to remain competitive and provide sustainable, long-term financing mechanisms for federal transportation infrastructure investments.

Packaging

Steel cans are the most recycled food package in the world,

giving steel an important role in providing sustainable packaging for foods that carry important nutrients essential to a healthy diet. According to a study published in the *Journal of the Academy of Nutrition and Dietetics*, children and adults who eat canned fruits and vegetables have greater overall fruit and vegetable consumption, better diet quality and increased nutrient intake compared to children and adults who do not eat canned fruits and vegetables.¹

Additional research shows that canned foods provide needed nutrients often at a lower cost than fresh, frozen and dried forms, particularly when price, waste and time to prepare are considered.² The Canned Food Alliance (CFA), comprised of steel and can manufacturers, food processors and affiliate members, informs nutrition and health professionals, government officials and consumers about the benefits of canned food, including its nutritional value, convenience, affordability, versatility, year-round availability, economic impact and sustainability.

As a National Strategic Partner of the U.S. Department of Agriculture (USDA) Center for Nutrition Policy and Promotion, the CFA conveys how canned foods can help fill MyPlate, the USDA nutrition guide. CFA's strategic partnerships with the Produce for Better Health Foundation (of which CFA was named a Fruits and Veggies More



The Canned Food Alliance works with the USDA as a National Strategic Partner to help educate consumers about the many varieties of canned foods available today that can help Americans meet the 2015 Dietary Guidelines.

Matters Role Model for the fourth consecutive year), the National Fruit and Vegetable Alliance and the American Fruit and Vegetable Processors and Growers Coalition promote the consumption of all forms of fruits and vegetables, whether they are canned, fresh, frozen or dried. CFA has worked in collaboration with these groups to ensure the Dietary Guidelines (DGA) for Americans included "all forms" language, and works closely with organizations that share similar food and nutrition interests to address misconceptions regarding canned food, communicates the attributes of canned food with influencers and advocates for fair legislative and regulatory language for canned foods. For more information and a full list of CFA's partners, visit www.mealtime.org.

Freedman MR, Fulgoni V. "Canned Vegetable and Fruit Consumption Is Associated with Changes in Nutrient Intake and Higher Diet Quality in Children and Adults: National Health and Nutrition Examination Survey 2001–2010." JAND 2016.

² Kapica C, Weiss W (2012). "Canned Fruits, Vegetables, Beans and Fish Provide Nutrients at a Lower Cost Compared to Fresh, Frozen or Dried." J Nutr Food Sci 2:131. doi:10.4172/2155-9600.1000131.



Photo by Josh Haner/The New York Times/Redux

National Security and Infrastructure

Our nation's homeland and economic security must never become dangerously dependent on offshore sources of steel supply. Steel is a strategic material whose importance to the military, intelligence and law enforcement communities goes beyond its use in constructing tanks, ships, military barracks, fences and bases, at home and overseas. It also creates an effective network of railcars, railways and road and ground transportation vehicles. Only a strong domestic steel industry can be relied on during a time of crisis to provide immediate steel deliveries when and where required, and its economic significance to the nation is beyond measure. Some examples of applications for domestic steel vital to America's infrastructure are:

- Energy infrastructure such as petroleum refineries, oil and gas pipelines, storage tanks, electricity powergenerating power plants, electricity transmission towers and utility distribution poles.
- Transportation infrastructure such as highways, bridges, railroads, mass transit systems, airports, seaports and navigation systems.
- Health and public safety infrastructure such as dams and, reservoirs, waste and sewage treatment facilities, the public water supply system and, increasingly, residential construction.
- Commercial, industrial and institutional complexes such as manufacturing plants, schools, commercial buildings, chemical processing plants, hospitals, retail stores, hotels, houses of worship and government buildings.

American-made steels and specialty metals are crucial components of U.S. military strength.



The mine-resistant ambush-protected vehicles (MRAPs) played an essential role in properly equipping and protecting U.S. troops in parts of the world and utilize special armored steels that are produced and developed in America.



Photo: Stocktrek Images, Inc.

Military uses for steel are extensive. Steel is a strategic material needed to create and strengthen existing U.S. infrastructure and installations. Thousands of skilled men and women of the American steel industry work to produce high-quality, cost-competitive products that the military uses in various applications ranging from aircraft carriers and nuclear submarines to Patriot and Stinger missiles, armor plate for tanks and field artillery pieces, as well as every major military aircraft in production today. Some examples of steel use in defense applications are:

- The USS New York was built with 24 tons of steel reclaimed and recycled from the World Trade Center.
- The USS George H.W. Bush, an aircraft carrier named after the 41st President, contains 47,000 tons of structural steel and serves as home to 6,000 Navy personnel.

All segments of the domestic steel industry contribute directly or indirectly to the defense industrial base. Whether it is missiles, jet aircraft, submarines, helicopters, Humvees[®] or munitions, American-made steels and specialty metals are crucial components of U.S. military strength. Steel plate is used in the bodies and propulsion systems of the naval fleet. The control cables on virtually all military aircraft, including fighter jets and military transport planes, are produced from steel wire rope. In addition, land-based vehicles such as the Bradley Fighting Vehicle, Abrams Tank and MRAP vehicles use significant amounts of steel.



Photo courtesy of EVRAZ North America

Transformational Technologies

The steel industry has been conducting research aimed at developing both incrementally improved and revolutionary iron and steelmaking technologies that will significantly reduce energy and greenhouse gas emissions.

Novel Flash Ironmaking

An innovative ironmaking technology based on the direct gaseous reduction of fine iron oxide concentrates in a flash reduction process is under development at the University of Utah. The novel Flash Ironmaking Process takes advantage of shale gas discoveries in the United States and the productive use of the available large quantities of fine iron oxide concentrates.

Once fully implemented, the projected benefits of this novel technology include a reduction in energy consumption by using concentrates that do not require pelletization or sintering—potentially eliminating the use of coke. Significant environmental emission reductions—especially CO₂ emissions in comparison to the conventional blast furnace ironmaking route—come from using natural gas or hydrogen instead of coke as the reducing agent.

The novel Flash Ironmaking Process technology is to be applied to the production of iron as a feed to the steelmaking process initially, but could also be a part of a continuous direct steelmaking process eventually replacing the blast furnace and other alternative ironmaking processes.



Photo courtesy of Berry Metal Company

The reactor shown in Figure 1 was commissioned in late 2015. A comprehensive testing program is being conducted by the University of Utah to identify technical and scale-up hurdles that will generate information on optimum operating temperature, gas velocity, reactor dimensions and refractory type needed to develop the design and construction of an industrial pilot-plant.

This research project shows the U.S. steel industry's commitment to developing technical solutions today that will help realize the next-generation steel plant of the future.

Committee on Manufacturing Technology/Technology Roadmap

AISI's Committee on Manufacturing Technology (COMT) has prioritized topics on which to seek proposals. The committee agreed on the following four items: advanced measurement technology, additive manufacturing impacts on steel and competing materials, CO₂ reduction from steelmaking processes and recycling of steel plant wastes.

This is a broad range of topics that will provide multiple research opportunities. The COMT anticipates some of these research topics will result in solutions that can be implemented in the near term (1–3 years).

AISI Advocacy

Advocacy is at the core of what we do. AISI works closely with opinion leaders, policymakers and the public to advance the industry's key messages on Capitol Hill.

THIS PAGE, FROM L TO R: 1) JEFF SESSIONS, U.S. Attorney General; 2) Steel industry representatives at government trade hearing; 3) TOM GIBSON. President and CEO, AISI: 4) Rep. RICHARD HUDSON (R-NC), JOHN FERRIOLA, Chairman, President and CEO, Nucor Corp., Rep. ROBERT PITTENGER (R-NC), Rep. LARRY BUSCHON (R-IN); 5) ROGER NEWPORT, CEO, AK Steel Corp., Rep. KEITH ROTHFUS (R-PA); 6) Rep. BRADLEY BYRNE (R-AL), JOHN BRETT, CEO, ArcelorMittal USA; 7) DAVID RUUD, President, DTE Energy 8) TOM GIBSON, President and CEO, AISI addressing U.S. Senate Banking Committee Hearing; 9) Rep. SCOTT TIPTON (R-CO), GUILLERMO VOGEL, Vice Chairman of the Board, Tenaris. OPPOSITE PAGE: FROM L TO R: 10) FRANK JENKO, United Steel Workers Local 2705 President, LOURENCO GONCALVES, Chairman, President and CEO, Cliffs Natural Resources, Inc., Rep. RICK NOLAN (D-MN), JONATHAN HOLMES, Vice President and Operations Manager, ArcelorMittal Minorca Mine, TOM GIBSON, President and CEO, AISI; 11) JOHN FERRIOLA, Chairman, President and CEO, Nucor Corp., Rep. DARIN LAHOOD (R-IL): 12) AISI Press Briefing in Salt Lake City: 13) Department of Commerce, United States Trade Representative hearing on the steel crisis with Senators SHERROD BROWN (D-OH), AMY KLOBUCHAR (D-MN) and ROB PORTMAN (R-OH); 14) MARIO LONGHI, President and CEO, United States Steel Corp., Rep. MARCY KAPTUR (D-OH); 15) MIKE ROMANO, Global Vice President, Nalco, Rep. TIM MURPHY (R-PA); 16) JOHN BRETT, CEO, ArcelorMittal USA, Rep. CHARLIE DENT (R-PA); 17) Rep. TIM MURPHY (R-PA), Rep. PETE VISCLOSKY (D-IN), MARIO LONGHI, President and CEO, United States Steel Corp.; 18) VICTOR CAIRO, CEO, ArcelorMittal Mexico, LUIS LANDOIS GARZA, Sales Director, Altos Hornos de Mexico, S.A. and SEAN DONNELLY, President and CEO, ArcelorMittal Defasco. 19) Rep. TIM WALBERG (R-MI), ROGER NEWPORT, CEO, AK Steel Corp., BRETT SMITH, Senior Director, Government Affairs, AISI; 20) Rep. RON WYDEN (D-OR), CONRAD WINKLER, President and CEO, EVRAZ North America, TOM GIBSON, President and CEO, AISI; 21) TIM TIMKEN, Chairman, CEO and President, TimkenSteel Corp., CONRAD WINKLER, President and CEO, EVRAZ North America, MARIO LONGHI, President and CEO, United States Steel Corp., Rep. PETE VISCLOSKY (D-IN), JOHN FERRIOLA, Chairman, President and CEO, Nucor Corp., ROGER NEWPORT, CEO, AK Steel Corp., TOM GIBSON, President and CEO, AISI; 22) MARCELO BOTELHO RODRIGUES, President and CEO, California Steel Industries, Inc., MAXIMO VEDOYA, CEO, Ternium Mexico; 23) MARK HERECHUCK, Regional Vice President - North America, Harsco Metals & Minerals, Rep. BOB LATTA (R-OH).





































The American Iron and Steel Institute

Founded in 1855 as the American Iron Association, the American Iron and Steel Institute (AISI) has represented the steel industry for more than 150 years. Headquartered in Washington, D.C., AISI advocates on behalf of its member companies for public policies that support a globally competitive North American steel industry. Never has it been more critical than it is today for the industry to speak out loud and clear and with a unified voice on major policy issues that are impacting American manufacturers.

AISI's mission is to influence public policy, educate and shape public opinion in support of a strong, sustainable North American steel industry committed to manufacturing products that meet society's needs.

To achieve its mission, AISI:

- FOCUSES ON THE ADVOCACY of public policy priorities central to the steel industry where AISI can make an impact on issues where there is strong member alignment.
- INFORMS AND EDUCATES opinion leaders about the North American steel industry's strategic importance to national and economic security.
- COMMUNICATES THE BENEFITS that the industry's technological advances are making to the health and safety
 of its workforce and to the environment.
- COLLECTS AND PROVIDES INDUSTRY DATA to policymakers, company personnel and the public regarding steel operations, production, energy efficiency, shipments, import/export levels and consumption.
- PURSUES TECHNOLOGY ADVANCEMENTS through collaborative research and development.
- **ASSISTS MEMBER COMPANIES** in attracting and retaining talent.
- ◆ ADVANCES THE COMPETITIVE USE of steel in traditional and growth markets.

The Steel Market Development Institute

The Steel Market Development Institute (SMDI), a business unit of AISI, increases and defends the use of steel by developing and communicating innovative materials and designs. SMDI works to differentiate steel based on its environmental performance and demonstrate steel as the highest-value material in the automotive, construction and packaging markets.

In partnership with its investor steel companies, SMDI:

- works with our Automotive customers to advance and demonstrate steel's superior performance providing better value than competing materials.
- PROVIDES STEEL-BASED SOLUTIONS in the commercial and residential construction sectors, and transportation and infrastructure sectors, through applied research and technology transfer with its many partners in the construction markets, including leveraging codes and standards processes to defend and advance steel industry interests.
- INTERFACES WITH LEGISLATORS and health professionals to ensure a level playing field for canned food in federal programs, and to inform these influential groups about canned food's high nutritional value to both children and adults.
- LEVERAGES THE CAPABILITIES OF THE STEEL RECYCLING INSTITUTE (SRI) in promoting recycling, sustainability and life cycle advantages of North American steel.

AISI Producer Members and Their Locations in North America

AK STEEL CORPORATION

North American Locations Headquarters: West Chester, OH

UNITED STATES

Indiana

Columbus: Carbon and stainless tubular steel Rockport: Cold rolled carbon and stainless steels line

Kentucky

Ashland: Galvanized and galvannealed strip

Michigan

Dearborn: Hot rolled, cold rolled, and hot dipped galvanized and annealed sheet Monroe: JV Spartan Steel Coating LLC (hot dipped galvanized and galvannealed sheet)

Ohio

Coshocton: Stainless steels in cold rolled strip, sheet coils Mansfield: Flat-rolled carbon, ferritic stainless Middletown: Hot rolled, cold rolled, enameling steel, electrogalvanized hot-dip galvanized, hot-dip aluminized, hot-dip aluminized carbon and stainless Walbridge: Tubular steel

Zanesville: Oriented and non-oriented, electrical steel, stainless flat-rolled

Pennsylvania

Butler: Flat-rolled and electrical and stainless steels, stainless semi-finished slabs

Somerset County: AK Coal Resources, Inc. (a wholly-owned subsidiary of AK Steel)—metallurgical coal reserves

West Virginia

Follansbee: Mountain State Carbon, LLC (cokemaking)

North American Production: 6.0 million tons

ALTOS HORNOS DE MÉXICO, S.A.B. DE C.V.

North American Locations

Headquarters: Av. Juarez S/No., Col. La Loma, Monclova, Coahuila, México

MEXICO Coahuila Monclova facility: Plate, hot rolled coil, cold rolled coil, tin,

tin free steel, structural shapes, service center Distrito Federal

Mexico City: Sales office Estado de Mexico

Atizapán de Zaragoza: Service center

Jalisco Zapopan: Service center and sales office

Nuevo León Monterrey: Nacional de Aceros, S.A. de C.V. (NASA): Light weight wall tubes, sales office

San Luis Potosí San Luis Potosí: Sales office

UNITED STATES Texas San Antonio: Sales office

North American Production: 5.5 million tons

ARCELORMITTAL NORTH AMERICA

North American Locations Headquarters: Chicago, IL

UNITED STATES

Alabama Calvert: AM/NS Calvert: Flat (JV with Nippon Steel & Sumitomo Metal Corp.)

Illinois Riverdale: Flat

Indiana

Burns Harbor: Flat and plate East Chicago: Indiana Harbor (East and West): Flat, long (idled) and global research and development center Gary: Plate New Carlisle: I/N Tek and I/N Kote: Flat (JV with Nippon Steel & Sumitomo Metal Corporation)

Minnesota Hibbing Taconite: Mine (JV with U. S. Steel and Cliffs Natural Resources) Virginia: Minorca Mine

Mississippi Jackson: Double G Coatings: Flat (JV with U. S. Steel)

North Carolina Piedmont: Plate

Ohio

Cleveland: Flat Columbus: Flat Marion: Tube Pioneer: Tailored blanks Shelby: Tube Warren: Coke

Pennsylvania

Coatesville: Plate Conshohocken: Plate Monessen: Coke Steelton: Long

Tennessee

Murfreesboro: Tailored blanks

West Virginia Princeton: Mine Weirton: Flat

CANADA

Nunavut

Baffinland Iron Mines Corporation: JV Nunavut Iron Ore Holdings LP (Head office: Oakville, ON)

Ontario

Baycoat: JV U. S. Steel Canada (flat) Brampton: Tube Concord: Tailored blanks Hamilton: Flat, long, tube and global research and development center London: Tube Windsor: Flat Woodstock: Tube

Quebec

Contrecoeur East: Long Contrecoeur West: Long Coteau-du-Lac: Flat Fire Lake: Mine Longueuil: Long Mount-Wright: Mine Port-Cartier: Pellet plant and port St. Patrick: Long

MEXICO

Guanajuato Celaya: Long Silao: JV Summit Plastics (tailored blanks)

Michoacan Las Truchas: Mines

Lazaro Cardenas: Flat and long Nuevo León

Monterrey: Tube

San Luis Potosí

San Lui Potosí–Villa de Reyes: Tailored blanks

Sonora Sonora-Ciudad Obregón: Mine Sonora-Ejido en Rosario Tesopaco: Mine Sonora-Guaymas: Port operation

North American Production: 25 million tonnes North American Iron Ore Production: 41.7 million tonnes

CALIFORNIA STEEL INDUSTRIES, INC.

North American Locations Headquarters: Fontana, CA

UNITED STATES

California

Fontana: Converts purchased steel slab into hot rolled, pickled and oiled, galvanized, and cold rolled sheet; electrical resistance welded pipe

North American Production: 2 million tons

CLIFFS NATURAL RESOURCES

North American Locations Headquarters: Cleveland, OH

UNITED STATES

Michigan Ishpeming: Tilden Mine Palmer: Empire Mine (indefinite idle)

Minnesota

Babbitt: Northshore Mining Company (mine) Eveleth: United Taconite (mine) Forbes: United Taconite (mine) Hibbing: Hibbing Taconite Silver Bay: Northshore Mining Company (mine)

Cliffs Natural Resources Inc. is a leading mining and natural resources company in the United States. The Company is a major supplier of iron ore pellets to the North American steel industry from its mines and pellet plants located in Michigan and Minnesota. Cliffs also operates an iron ore mining complex in Western Australia.

U.S. Iron Ore Production: 16.0 million long tons in 2016

DEACERO, S.A.P.I. DE C.V.

North American Locations Headquarters: San Pedro Garza Garcia, Nuevo León–Mexico MEXICO

Baja California Ensenada: Scrap recollection center La Paz: Distribution center Mexicali: Wire products, scrap recollection center Tijuana: Distribution center, scrap recollection center

Chiapas Tapachula: Distribution center

Chihuahua: Scrap yard

Ciudad de Mexico Delegacion Gustavo A. Madero: Scrap recollection center

Coahuila

Ramos Arizpe/Saltillo: Steelmaking, billet, wire rod, rebar, merchant bars, shapes, beams, wire products, scrap recollection center

Estado de Mexico

Cuautitlán: Distribution center Tlalneplanta: Wire products, scrap recollection center, sales office Tultitlan: Scrap recollection center

Guanajuato

León: Wire products Villagran/Celaya: Steelmaking, billet, wire rod, rebar, merchant bars, wire products, scrap yard

Jalisco

Guadalajara: Scrap recollection center, distribution center, sales office

Michoacan

Morelia: Wire products

Morelos

Cuernavaca: Scrap recollection center

Nuevo León

Guadalupe: Wire products, scrap recollection center Monterrey: Sales office San Nicolas de los Garza: Scrap recollection center

San Pedro Garza Garcia: Main office Santa Catarina: Wire products, distribution center Puebla Puebla: Wire products, scrap recollection center, sales office

Queretaro Queretaro: Wire products

San Luis Potosí San Luis Potosí: Scrap recollection center

Sinaloa Culiacan: Distribution center, scrap yard

Sonora Hermosillo: Scrap recollection center, warehouse

Tabasco Huimanguillo: Distribution center Villahermosa: Distribution center

Tamaulipas Altamira: Scrap yard Tampico: Scrap yard

Matamoros: Scrap recollection center Veracruz

Veracruz: Distribution center, scrap yard

Yucatan Merida: Scrap recollection center, distribution center

UNITED STATES Arizona Phoenix: Sales office

Illinois Chicago: Warehouse

Indiana Indianapolis: Warehouse

Missouri Poplar Bluff: Wire products

Texas Corpus Christi: Scrap recollection center Eagle Pass: Scrap yard Houston: Deacero USA, Inc. (wire products and sales office) Laredo: Distribution center and warehouses San Antonio: Scrap yard

North American Production: 3.5 million tons

DTE ENERGY SERVICES

North American Locations Headquarters: Ann Arbor, MI

UNITED STATES Indiana Burns Harbor

Michigan River Rouge

North American Production: Among the many energy operations of DTE are steel mill coke and coal operations and cogeneration projects.

EVRAZ NORTH AMERICA

North American Locations Headquarters: Chicago, IL

UNITED STATES Colorado

Pueblo: Steelmaking, premium head hardened and standard rail, seamless OCTG, wire rod, coiled reinforcing bar, product technology center, sales office

Oregon

Portland: Plate, heat-treated plate, coil, large diameter spiral line pipe, technology lab, sales office

CANADA

Alberta

Calgary: ERW, OCTG casing and tubing with upsetting, threading and heat-treating capabilities, semi-premium connections, sales office

Camrose: Small diameter line pipe (ERW) and large diameter line pipe (DSAW), ERW OCTG casing

Red Deer: ERW OCTG casing, small diameter line pipe with API, premium threading, permium connections

Saskatchewan

Regina: Steelmaking, plate and coil, ERW OCTG tubing, small and large diameter line pipe (ERW and spiral), research and development center, sales office

North American Production: EVRAZ North America is a leading North American producer of engineered steel products for rail, energy and industrial end markets. The company also operates numerous recycling businesses across the western U.S. and Canada.

HARSCO METALS & MINERALS

North American Locations Headquarters: Seven Fields, PA

UNITED STATES

Alabama Satsuma

Arkansas Blytheville Newport

Colorado Pueblo

Florida Tampa

Illinois Pawnee

Pekin

Indiana

East Chicago Gary Pittsboro

lowa Muscatine

Kansas

LaCygne

Kentucky Drakesboro

Missouri Clifton Hill **North Carolina** Cofield Ohio Cheshire Warren Waterford Pennsylvania Braddock Butler Fairless Hills Koppel Latrobe Natrona Heights Sarver Steelton Tennessee Memphis Texas Houston Midlothian Utah Provo

West Virginia Moundsville

CANADA Ontario Hamilton Nanticoke

Whitby

Quebec Contrecoeur

Sorel-Tracy

MEXICO

Guanaiuanto Celaya

Michoacan Lazaro Cardenas

Nuevo León Apodaca Monterrey San Nicolas

North American Production: Harsco provides innovative resource recovery technologies, environmental solutions and logistics services to the metals and minerals industries.

IVACO ROLLING MILLS 2004 L.P.

North American Location Headquarters: l'Orignal, Ontario, Canada Ontario l'Orignal: Hot rolled steel wire rod, billet

North American Production: 900,000 tons

NUCOR CORPORATION

North American Locations Headquarters: Charlotte, NC UNITED STATES Alabama Birmingham: Nucor Steel Birmingham (carbon steel reinforcing bar, rounds, squares) Birmingham: Southland Tube, Inc. (tube) Birmingham: Skyline Steel (sales) Decatur: Independence Tube Corporation Decatur (tube) Eufaula: American Buildings Company South Region (metal building systems)

Fort Payne: Vulcraft Alabama (carbon steel in joists, joist girders, composite floor joist, and floor and roof deck) Riverside: Harris Rebar (rebar)

Trinity: Nucor Steel Decatur (carbon steel sheet in hot rolled, pickled, cold rolled, galvanized, galvannealed)

Trinity: Independence Tube Corporation Trinity (tube) Tuscaloosa: Nucor Steel Tuscaloosa (carbon and highstrength alloy, hot rolled coil and cut-to-length plate for structural and pressure vessel applications)

Arizona

Kingman: Nucor Steel Kingman (carbon steel reinforcing bar, wire rod)

Phoenix: Harris Rebar (rebar) Phoenix: Verco Decking (steel floor, roof deck) Tucson: Harris Rebar (rebar)

Arkansas

Armorel: Nucor–Yamato Steel (carbon steel wide-flange beams, sheet and H-piling, miscellaneous and standard channels, angles, CZ and CSC car building sections, rail ties) Armorel: Skyline Steel (coating and fabrication) Blytheville: Nucor Steel Arkansas (carbon steel sheet in hot rolled, cold rolled, pickled, floor plate, galvanized coils)

California

Antioch: Verco Decking (steel floor, roof deck) Fontana: Verco Decking (steel floor, roof deck) Fresno: Harris Rebar (rebar) Lakeside: Harris Rebar (rebar) Lathrop: CBC Steel Buildings (metal building systems) Livermore: Harris Rebar (rebar) Pomona: Harris Rebar (rebar) Sacramento: Skyline Steel (sales)

Colorado

Commerce City: Harris Rebar (rebar) Denver: Skyline Steel (sales)

Connecticut

South Windsor: Harris Rebar (rebar) Wallingford: Nucor Steel Connecticut (carbon steel reinforcing bar, wire rod, wire mesh fabrication, structural mesh fabrication, rolled wire, deformed wire)

Florida

Milton: Harris Rebar (rebar) Orlando: Skyline Steel (sales) Zellwood: Harris Rebar (rebar)

Georgia

Cartersville: Nucor Bright Bar Georgia (carbon, leaded, and alloy cold drawn steel bars) Cartersville: Skyline Steel (threaded bar) Duluth: Skyline Steel (sales)

Hawaii

Kapolei: Harris Rebar (rebar)

Idaho

Meridian: Harris Rebar (rebar)

Illinois

Belvidere: Harris Rebar (rebar) Bourbonnais: Harris Rebar (rebar) Bourbonnais: Nucor Steel Kankakee (carbon steel angles, rounds, flats, reinforcing bar) Burr Ridge: Harris Rebar (sales) Chicago: Independence Tube Corporation Chicago (tube) El Paso: American Buildings Company Midwest Region (metal building systems) Litchfield: Fisher & Ludlow (bar and safety grating, expanded metals products) Marseilles: Independence Tube Corporation Marseilles (tube) Newton: Skyline Steel (rolled and welded pipe) Tinley Park: Skyline Steel (sales)

Indiana

Auburn: Harris Rebar (administration)

Crawfordsville: Nucor Steel Indiana (carbon steel sheet in hot rolled, cold rolled, pickled, floor plate and galvanized coils; stainless steel in hot rolled, cold rolled, pickled coils) Mooresville: Harris Rebar (rebar)

St. Joe: Nucor Fastener Indiana (carbon and alloy steel standard hex head cap screws, hex flange bolts, structural bolts and nuts, finished hex nuts)

St. Joe: Vulcraft Indiana (carbon steel in joist, joist girders, composite floor joist, and floor and roof deck) Waterloo: Nucor Building Systems Indiana (metal building systems)

lowa

Newton: Harris Rebar (rebar) Sioux City: Harris Rebar (sales)

Kentucky

Florence: Fisher & Ludlow (bar and safety grating, expanded metals products) Ghent: Nucor Steel Gallatin (hot rolled coils, hot rolled bands, hot rolled pickled and oiled, hot rolled slit coils) Louisville: Harris Rebar (sales)

Louisiana

Convent: Nucor Steel Louisiana (direct reduced iron) Mandeville: Skyline Steel (sales) Slidell: Harris Rebar (sales)

Maryland

Baltimore: Harris Rebar (rebar)

Massachusetts

Deerfield: Harris Rebar (rebar) Milford: Harris Rebar (administration) Taunton: Skyline Steel (sales)

Michigan

Comstock Park: Harris Rebar (rebar) Lansing: Harris Rebar (rebar)

Minneapolis: Harris Rebar (rebar)

Mississippi

Flowood: Harris Rebar (rebar) Flowood: Nucor Steel Jackson (carbon steel angles, flats, reinforcing rounds, squares) Iuka: Skyline Steel (spiralweld pipe) Madison: Fisher & Ludlow (bar and safety grating, expanded metals products) Starkville: Kirby Building Systems Mississippi (metal building systems)

Missouri

Earth City: Skyline Steel (sales) Kansas City: Harris Rebar (rebar) Maryville: Nucor LMP Steel (cold finished bar and wire) St. Louis: Harris Rebar (rebar)

Nebraska

Bellevue: Harris Rebar (rebar) Norfolk: Nucor Cold Finish Nebraska (carbon, leaded and alloy cold drawn steel bar) Norfolk: Nucor Steel Nebraska (carbon and alloy steel in special bar quality, cold heating quality and bearing quality, merchant bar quality in angles, channels, flats, hexagons, rounds and squares, rod, bar, squares, hex in coil) Norfolk: Vulcraft Nebraska (carbon steel in joists, joist girders, composite floor joists, floor and roof deck)

Nevada

Carson City: American Buildings Company West Region (metal building systems) Carson City: Harris Rebar (rebar) Las Vegas: Harris Rebar (rebar)

New Hampshire

Canaan: Harris Rebar (rebar)

New Jersey

Avenel: Harris Rebar (rebar) Middletown: Skyline Steel (sales) Parsippany: Skyline Steel (corporate headquarters)

New Mexico

Albuquerque: Harris Rebar (rebar)

New York

Albany: Harris Rebar (rebar)
Auburn: Nucor Steel Auburn (carbon steel angles, channels, flats, reinforcing bars, rounds, squares)
Chemung: Vulcraft of New York (carbon steel in joists, joist girders, composite floor joists, special profile steel trusses, floor and roof deck)
Westbury: Harris Rebar (sales)

North Carolina

Benson: Harris Rebar (sales) Cofield: Nucor Steel Hertford County (carbon steel plate) Creedmoor: Harris Rebar (rebar) Lumberton: Harris Rebar (rebar)

Ohio

Belpre: Skyline Steel (CF steel sheet pile) Marion: Harris Rebar (rebar) Marion: Nucor Steel Marion (carbon steel angles, flats, rebar, rounds, signposts) Monroe: Harris Rebar (sales) Orrville: Nucor Bright Bar Ohio (carbon, leaded and alloy cold drawn steel bars) West Chester: Skyline Steel (sales)

Oregon

Portland: Harris Rebar (rebar)

Pennsylvania

Bethlehem: Harris Rebar (rebar) Camp Hill: Skyline Steel (spiralweld pipe, threaded bar, micropile, accessories) McKees Rocks: Fisher & Ludlow (bar and safety grating, expanded metals products) Pittsburgh: Skyline Steel (sales) Saegertown: Fisher & Ludlow (bar and safety grating, expanded metals products) Wexford: Fisher & Ludlow (bar, safety grating, expanded

metals products)

Rhode Island Pawtucket: Harris Rebar (rebar)

South Carolina

Catawba: Harris Rebar (rebar) Darlington: Nucor Cold Finish South Carolina (carbon leaded and alloy cold drawn steel bars)

Darlington: Nucor Steel South Carolina (carbon steel in special bar quality, merchant bar quality, and reinforcing products in the following shapes: angles, channels, flats, hexagons, reinforcing bars and rounds)

Florence: Vulcraft South Carolina (carbon steel in joists, joist girders, composite floor joists, and floor and roof deck)

Huger: Nucor Steel Berkeley (carbon steel sheet in hot rolled, cold rolled, pickled, galvanized, and galvannealed coils, carbon steel wide range beams, manufacturing housing beams, standard I beams, and miscellaneous and standard channels)

Swansea: Nucor Building Systems South Carolina (metal building systems)

Tennessee

Collierville: Harris Rebar (sales) **Memphis:** Nucor Steel Memphis (carbon steel in special bar quality rounds, round cornered squares)

Portland: Kirby Building Systems Tennessee (metal building systems)

Texas

Dallas: Harris Rebar (rebar)

Dayton: Harris Rebar (rebar)

Grapeland: Vulcraft Texas (carbon steel in joists, joist girders, composite floor joists, special profile steel trusses, floor and roof deck)

Houston: Skyline Steel (sales)

Jewett: Nucor Steel Texas (carbon steel angles, channels, flats, reinforcing bars, rounds, special sections, squares, U.M. plates)

Longview: Harris Rebar (rebar)

Longview: Nucor Steel Longview (carbon steel plate) New Braunfels: Harris Rebar (rebar)

Terrell: Nucor Building Systems (metal building systems)

Utah

Brigham City: Nucor Building Systems (metal building systems)

Brigham City: Nucor Cold Finish Utah (cold finished SBQ bar products, cold rolled wire, welded wire mesh)

Brigham City: Nucor Wire Products Utah (carbon steel standard mesh, mine mesh, rolled wire)

Brigham City: Vulcraft Utah (carbon steel in joists, joist girders, composite floor joists, special profile steel trusses) Plymouth: Nucor Steel Utah (carbon steel angles, channels, flats, reinforcing bars, rounds, squares)

Salt Lake City: Harris Rebar (rebar)

Virginia

Fredericksburg: Harris Rebar (rebar) LaCrosse: American Buildings Company Atlantic Region (metal building systems) Springfield: Skyline Steel (sales)

Washington

Auburn: Harris Rebar (rebar) Burbank: Harris Rebar (rebar) Fife: Skyline Steel (sales) Lake Stevens: Harris Rebar (rebar) Longview: Skyline Steel (rolled and welded pipe, spiralweld pipe) Seattle: Nucor Steel Seattle (carbon steel angles, channels, flats, reinforcing bar, rounds, squares) Tacoma: Harris Rebar (rebar)

Wisconsin

Appleton: Harris Rebar (sales) Menomonie: Harris Rebar (rebar) Oak Creek: Nucor Cold Finish Wisconsin (carbon, leaded, alloy cold drawn steel bars) Waukesha: Harris Rebar (rebar)

CANADA

Alberta

Calgary: Harris Rebar (rebar) Edmonton: Fisher & Ludlow (bar and safety grating, expanded metals products) Fort Saskatchewan: Harris Rebar (rebar) Leduc: Harris Rebar (rebar) St. Albert: Sklyine Steel (sales) Wetaskiwin: Fisher & Ludlow (bar and safety grating, expanded metals products)

British Columbia

Abbotsford: Harris Rebar (rebar) Delta: Harris Rebar (sales) Kelowna: Harris Rebar (rebar) Nanaimo: Harris Rebar (rebar) Prince George: Harris Rebar (rebar) Richmond: Harris Rebar (rebar) Surrey: Fisher & Ludlow (bar and safety grating, expanded metals products) Manitoba Winnipeg: Harris Rebar (rebar)

New Brunswick St. John: Harris Rebar (rebar)

Newfoundland Conception Bay: Harris Rebar (rebar)

Nova Scotia Dartmouth: Harris Rebar (rebar)

Ontario

Ancaster: Vulcraft Canada (steel joists, joist girders and decking) Belleville: Skyline Steel (sales) Brampton: Harris Rebar (rebar) Burlington: Fisher & Ludlow (bar and safety grating, expanded metals products) Burlington: Laurel Steel (cold finish steel bar) Lively: Harris Rebar (rebar) London: Harris Rebar (rebar) Maidstone: Harris Rebar (rebar) Ottawa: Harris Rebar (rebar) Sarnia: Harris Rebar (rebar) Stoney Creek: Harris Rebar (rebar) Stoney Creek: Harris Steel Group (corporate headquarters) Thunder Bay: Harris Rebar (rebar)

Quebec

Point Aux Trembles: Fisher & Ludlow (bar and safety grating, expanded metals products) St. Bruno: Skyline Steel (sales) Saskatchewan Regina: Harris Rebar (rebar)

Saskatoon: Harris Rebar (rebar)

North American Production: 28.8 million tons

The David J. Joseph Co. (A Nucor Subsidiary) The David J. Joseph Co. is a scrap subsidiary of Nucor Corporation with numerous locations in the following states: Alabama, Arizona, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Missouri, Nebraska, Nevada, New Mexico, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Washington and Wisconsin.

SSAB AMERICAS

North American Locations Headquarters: Lisle, IL

UNITED STATES

Alabama Mobile: Plate, quench and temper plate, normalized plate and coil

lowa Montpelier: Plate, slit coil and coil

Minnesota Roseville: Cut-to-length sheet and plate

Texas Houston: Cut-to-length sheet and plate

Ontario Scarborough: Temper leveled cut-to-length sheet and plate North American Production: 2.5 million tons

TENARIS TAMSA

CANADA

North American Locations Headquarters: Mexico City. Mexico

MEXICO Tabasco Comalcalco: Threading facilities

Tenaris Tamsa Veracruz: Seamless steel tubes, research and development center, threading facility

UNITED STATES

Arkansas

Blytheville: Maverick Tube Corporation (welded steel tubes)

California

Bakersfield: Hydril Company (threading facility)

Louisiana Westwego: Hydril Company (threading facility)

Texas

Conroe: Maverick Tube Corporation (welded steel tubes) Downhole Center/Houston: Tenaris Coiled Tubes, LLC (coiled tubes facility) Houston: Texas Arai (couplings facility) McCarty/Houston: Hydril Company (threading facility) Subsea Center/Houston: Tenaris Coiled Tubes, LLC (coiled tubes facility)

CANADA

Ontario

Sault Ste. Marie: Algomatubes Inc. (seamless steel tubes)

Alberta

Calgary: Prudential Steel Ltd. (welded steel tubes) Nisku: Hydril Canadian Company Ltd. (threading facility)

North American Production: 1.2 million tons

TERNIUM

North American Locations Headquarters: Monterrey, Mexico

MEXICO

Coahuila Monclova: Galvanized and color coated steel sheets

Nuevo León Apodaca: Rebars, roll-formed, billets Monterrey: HRC, CRC Pesquería: CRC and galvanized coils, high-end steel products San Nicolás de los Garza: HRC, CRC, profiles and tubes, panels, galvanized and color coated coils, roll-formed

Puebla Puebla: Rebar, wire rod, round bar

Product Distribution Centers Baja California Tijuana

Chiapas Túxtla Gutierrez

Chihuahua Chihuahua

Estado de México Tultitlán

Jalisco Guadalajara

Nuevo León Monterrey

Puebla Puebla

Sinaloa Culiacán

Veracruz Veracruz

Yucatán Mérida

Product Service Centers Nuevo Léon Apodaca Monterrey San Nicholás de los Garza

San Luis Potosi Ciénega de Flores San Luis Potosi

Mines Colima Peña Colorada (Ternium share 50%)

Michoacán Aquila

UNITED STATES

Louisiana Shreveport: Galvanized, color coated sheets Houston: Distribution, administrative North American Production: 7.2 million tons

TIMKENSTEEL CORPORATION

North American Locations Headquarters: Canton, OH

UNITED STATES

North Carolina Columbus: Tryon Peak steel plant (value-added processes) Ohio Akron: City Scrap and Salvage (scrap metal for steelmaking operations) Canton: Faircrest Steel Plant (specialty alloy steel bars, billets) Canton: Gambrinus Steel Plant (seamless mechanical tubing) Canton: Harrison Steel Plant (specialty alloy steel bars) Eaton: St. Clair Plant (specialty steel components)

Texas Houston: TimkenSteel Material Services (value-added processes)

North American Production: 837,000 tons

UNITED STATES STEEL CORPORATION

North American Locations Headquarters: Pittsburgh, PA

UNITED STATES Alabama Fairfield: Rounds, slabs, seamless tubular mill, sheet finishing

Arkansas Pine Bluff: Tubular couplings

California Pittsburg: JV USS-POSCO Industries (sheets and tin mill)

Illinois

Granite City: Sheets, slab

Indiana

East Chicago: Tin mill Gary: Slabs, tin mill, sheets, strip mill plate Portage: JV Chrome Deposit Corporation (processing, administrative) Portage: Sheets and tin mill

Michigan

Canton: JV Worthington Specialty Processing (steel processing) Dearborn: Electro-galvanized sheets Ecorse and River Rouge: Slabs and sheets Ishpeming: Tilden Mining Company (iron ore pellets, ownership interest) Jackson: JV Worthington Specialty Processing (steel processing) Taylor: JV Worthington Specialty Processing (steel processing) Troy: Research, development and sales center

Minnesota

Hibbing: Hibbing Taconite Company (iron ore pellets, ownership interest)

Keewatin: Keetac Iron Ore Operations (iron ore pellets) Mt. Iron: Minnitac Iron Ore Operations (iron ore pellets)

Mississippi

Jackson: JV Double G Coatings Company, L.P. (galvanized and GALVALUME $^{\odot}$ sheets)

Ohio

Leipsic: JV PRO-TEC Coating Company (coated sheet and value-add sheet) Lorain: Seamless tubular

Pennsylvania

Braddock: Slabs Clairton: Coke Fairless Hills: Galvanized sheets Munhall: Research and Technology Center West Mifflin: Sheets

Texas

Houston: Tubular couplings, processing, threading, inspection and storage service and research, development and sales center

Hughes Springs: Tubular couplings Lone Star: Welded tubular Midland: IV Patriot Promium Threading Services

Midland: JV Patriot Premium Threading Services (tubular finishing)

CANADA

Alberta

Calgary: U. S. Steel Tubular Products, Canada Sales Office

MEXICO

Coahuila

Ramos Arizpe: JV Acero Prime (processing, warehousing)

Mexico State

Toluca: JV Acero Prime (processing, warehousing)

San Luis Potosi

San Luis Potosi: JV Acero Prime (processing, warehousing)

North American Production: 22.0 million tons

AISI Producer Members



















IVACO ROLLING MILLS 2004 LP











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