

AMERICAN IRON AND STEEL INSTITUTE



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### A Message from AISI President and CEO Thomas J. Gibson

America stands at a crossroads, and our commitment to restore America's economic strength and prosperity will determine our future. A central strategy to strengthen our economy and competitiveness is to have a healthy and growing manufacturing sector. The American Iron and Steel Institute (AISI) is proud of its history of advocating on behalf of the domestic steel industry, a sector that is fundamental to the strength of American manufacturing and to America's economic and national security.

In the pages that follow, you will find a profile of the American steel industry: who we are, the achievements of our companies and their skilled workers, and our commitment to sustainability, which is reflected in our products and our performance. Steel's strength and versatility have helped to establish it as the material of choice in America's energy and transportation systems, the skyscrapers that grace our cities and the containers that help protect our food supply. Likewise, the new generation of advanced high-strength steel is contributing to the rapidly growing fleet of highly fuel-efficient vehicles on our roads and highways. These and numerous other steel applications are highlighted in the **Profile of the American Iron and Steel Institute 2012.** 

In addition to this industry profile and the directory of AISI member companies that follows, we encourage you to also visit **www.steel.org** to find out more about America's hi-tech, innovative and globally competitive steel industry.

Sincerely.

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 backbone of manufacturing, steel is a strategic industry, essential to America's economic growth and stability. The steel sector helped build the face of America, engendering a sense of national pride through famous landmarks, such as the Golden Gate Bridge welcoming visitors to our western states, the St. Louis Arch at the crossroads of America and the Chrysler Building that gives a unique flourish to New York City's skyline.

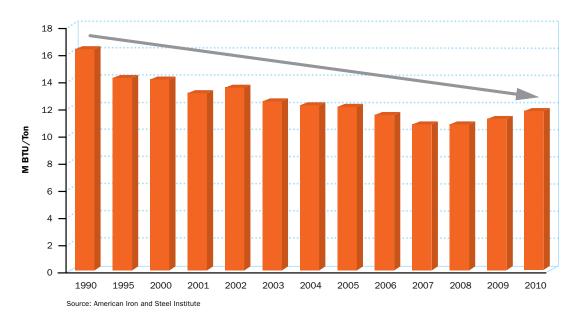
Not only is it an essential material in these American treasures, steel is fundamental to American society and our modern way of life. Our nation's energy supply, transportation system, urban centers, clean water and safe food supply all depend on steel. Innovation and technology have transformed America's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



# Building a Sustainable Future

The American steel industry has had a long-standing commitment to sustainability in both its products and its practices. This commitment is backed by significant investment in state-of-the-art facilities that improve energy efficiency, reduce carbon emissions and heighten productivity. By deploying new steelmaking technologies and through the innovations of the workers on the plant floor, the industry has reduced energy intensity per ton of steel produced by 27 percent and CO<sub>2</sub> emissions by 33 percent per ton of steel shipped since 1990. In fact, the steel industry is the only significant industry in the U.S. that reduced its total energy consumption while increasing its production from 1990 to 2008.

# The Steel Industry Improved its Energy Efficiency by 27% Since 1990



# Steel Recycling Rates (1998–2010)



Steel's infinite recyclability sets it apart from other materials in that it can be recycled again and again without the loss of its quality. Its recycling rate also far surpasses that of other materials. The chart above shows steel's overall recycling rate through 2010, the most recent full-year data available.

### Recycling

The overall recycling rate of steel remains at the high level of 88 percent based on data compiled by the Steel Recycling Institute (SRI) through 2010. Almost 76 million tons of domestic steel scrap were charged into furnaces. 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 drives the recycling of many consumer goods, as evidenced by recycling rates for the following products: automobiles (112.9%) appliances (90%), steel containers (67.1%), structural steel (98%), and construction reinforcement steel (70%). Recycling rates for automobiles are often near or over 100%, as older vehicles being recycled are often heavier than new cars, which are lighter and more fuel- efficient through the use of advanced high-strength steels.

As a result of the steel industry's commitment to sustainability, we are aggressively seeking ways to reduce our environmental footprint even while producing the advanced and highly recyclable steel that our economy needs. In fact, the American steel sector has been recognized as having the steepest decline of total air emissions among nine manufacturing sectors studied in the U.S. Environmental Protection Agency's (EPA) 2008 Sector Performance Report. A helpful tool that the industry is using as part of this process is the Life Cycle Assessment (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, the conservation of natural resources, such as water, and the extensive re-use of by-products.

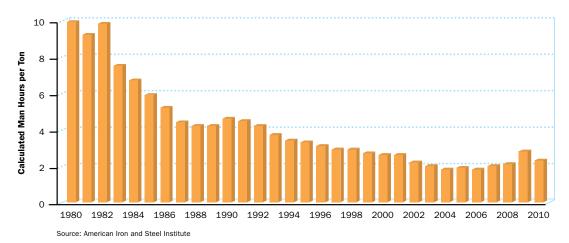
AMERICAN IRON AND STEEL INSTITUTE

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# Global Leader in Labor Productivity

For every one of the steel industry's 150,700 direct jobs, the steel sector generates seven jobs in upstream and downstream industries, adding more than 1,022,009 jobs to the economy. 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 two man-hours per finished ton of steel in 2010. 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. In that regard, member companies of the American Iron and Steel Institute are committed to continuous improvement in safety and health and to achieving an injury-free workplace.

# **Steel Industry Labor Hours per Tons of Steel (1980–2010)**



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

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 international trade rules set by the World Trade Organization and by American trade laws. Nations that habitually circumvent U.S. anti-dumping and countervailing duty laws in order to send unfairly traded imports into our market, must face consequences. To counter such foreign unfair trade practices, America must establish and enforce trade policies that will truly level the international playing field for all manufacturers, including keeping our trade laws strong and strictly enforcing them.



Photo courtesy of ArcelorMittal. Photo by Peter Barreras.

China's currency undervaluation by as much as 25 to 30 percent is an example of trade-distorting practices which harm the economies of the United States as well as our trading partners by keeping China's export prices artificially low.

American manufacturers, including U.S. steelmakers, can compete with anyone in the world, but we cannot compete with governments. That is why AISI is urging our government leaders to embrace and put in place a national manufacturing strategy. Such an approach can restore our manufacturing sector and create millions of new jobs through a comprehensive program to rebuild our infrastructure, achieve energy independence—which will also significantly reduce our trade deficit—and enforce our trade laws. It must also remove artificial barriers built by our trading partners and ensure that domestic policies are pro-manufacturing.

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

# 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 to commercial and residential construction.

In addition, steel products are a critical component in virtually every military platform and are essential to our national defense.

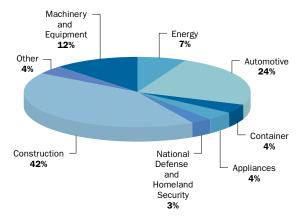
As we enter the second decade of the 21st century, the steel sector is recovering from the worst global recession since World War II. Prior to the global recession, the steel industry enjoyed five consecutive years of robust demand and strong performance. The North American steel industry consists of healthy, world-class companies that are internationally competitive.

In 2012, the steel sector expects to see gradual progress in comparison to 2011, with the market experiencing improvement in steel demand. Following is a summary of selected 2011 statistics for the American steel sector:

2011 U.S. Steel Industry STATISTICAL HIGHLIGHT					
Steel shipments	91 million tons				
Imports (finished)	22 million tons				
Exports	13 million tons				
Apparent steel demand	98 million tons				
Direct employment	150,700				
Direct & indirect total	1,022,009				
Note: all data are estimates based on latest available data					

Source: American Iron and Steel Institute

**2011 Steel Shipments by Market Classification** 



Source: American Iron and Steel Institute



Photo courtesy of ArcelorMittal Photo Library

Advanced high-strength steels have made automobiles safer and more fuel-efficient, and have the potential to enable significantly more progress in emissions reductions.

# **Automotive**

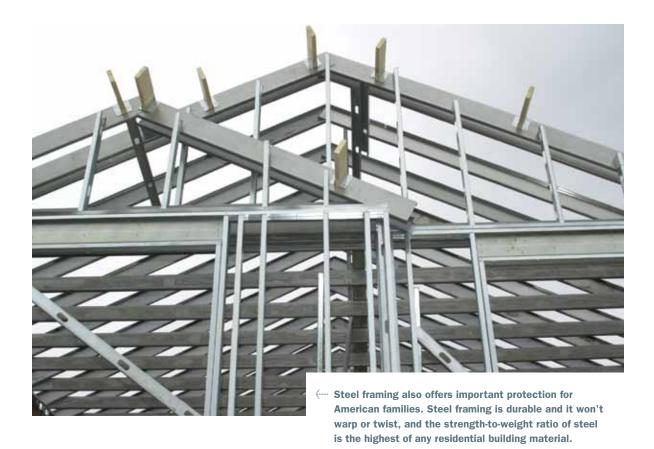
The North American steel industry's continual investment in advanced technologies has led to the introduction of a wide variety of new automotive steels. These new steel grades are growing faster in new automobiles than even aluminum and plastics, steel's main competitors. Each year new car models are introduced using lighterweight yet higher-strength steel components that provide a cost-effective answer to the demand for increased safety and fuel economy in automobiles and light trucks.

The total steel in the average 2010 vehicle is approximately 60 percent. A substantial portion of the steel in modern body structures, about 17 percent, is made up of these new, advanced high-strength steels (AHSS). According to Ducker Worldwide, these grades have grown in use by 93 percent in 2010 and are projected to grow by over 300 percent by 2020 from a level of 81 pounds per vehicle in 2006. These modern steels provide a superior combination of high strength.

crash energy management, excellent formability and dent resistance enabling automotive engineers to reach new targets of safety, performance and cost efficiency. These new steel technologies are showcased each year at AISI's Steel Market Development Institute's Great Designs in Steel seminar, which has become the leading go-to forum for the latest trends in automotive steel designs.

Substantial mass savings of over 25 percent have been achieved with these grades in body and component systems over the last decade. Recent projects including FutureSteelVehicle (a WorldAutoSteel study released in May 2011) show that the latest AHSS grades combined with innovative steel processing methods and design optimization techniques enable steel to achieve 35 percent mass reduction in many applications, virtually equivalent to past mass reduction levels achieved by aluminum. Mass reduction with AHSS not only conserves material but helps reduce greenhouse gas emissions over the full life cycle of the vehicle. If, for example, currently available AHSS were applied throughout the present U.S. automotive fleet, greenhouse gas emissions from automobiles would be reduced by approximately 12 percent—an amount greater than the emissions generated by the entire American steel industry today. This reduction in emissions is, in fact, already underway as automotive designers around the world use increasing amounts of AHSS in their vehicles.

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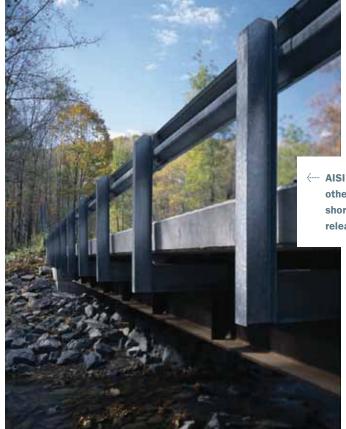


# Construction

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, its reliability, its versatility in design and consistency as a product, and its decidedly "green" profile.

### **Residential and Commercial Construction**

For example, the average steel-framed house can be made from four recycled cars, while it takes more than 40 trees to build a wood-framed home. Under the U.S. Green Building Council Leadership in Environmental and Energy Design (LEED®) green building rating system, steel is always a net contributor to the two available points provided for recycled content under *Materials & Resources Credit 4: Recycled Content*. Both commercial and residential steel buildings and steel roofs offer energy efficiency, longer life expectancy, low life-cycle costs and greater durability.



AISI's Steel Market Development Institute is working with other partners of the Short Span Steel Bridge Alliance to finalize short span steel bridge standards and design details that will be released in 2012.

# **Bridges**

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

Yet the Federal Highway Administration (FHWA) estimates that over 25 percent of America's nearly 600,000 bridges are either structurally deficient or functionally obsolete. 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 that are durable, cost-effective, and offer ease of maintenance and construction. In fact, high performance steels can save up to 18 percent of a bridge project's cost. And new permanent modular steel bridges are now available, which can be constructed in a single weekend. To upgrade our crumbling infrastructure, the Federal Highway Administration estimates that a 20-year investment of \$131.7 billion is needed for bridges and highways alone. The American Society of Civil Engineers' (ASCE) economic report on surface transportation (July 2011) found that deteriorating infrastructure will cost the American economy more than 876,000 jobs and suppress the growth of our GDP by \$897 billion by the year 2020. The ASCE 2009 Report Card for America's Infrastructure graded the nation's critical infrastructure systems with a "D" and noted a five-year investment need of \$2.2 trillion.

Today, America's bridges are utilizing bridge technologies that help save taxpayer dollars as we rebuild our infrastructure over the next two decades. In addition, designers and engineers can specify new high-performance steels (HPS), developed by member companies of AISI with the Office of Naval Research and the Federal Highway Administration. These steels have superior toughness and can be welded with little or no preheat. Today, there are more than 400 HPS bridges in use in 45 states.

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Steel offers cost-competitive solutions. Roadways that use continuously reinforced concrete pavement (CRCP—reinforced with steel) have been shown to improve fuel efficiency in heavy vehicles by as much as 20 percent. CRCP means increased environmental benefits because it is made of 100 percent recycled material, and it reduces thermal heat in cities and traffic delays for motorists because of fewer road repairs and reconstruction.

# **Transportation/Infrastructure**

In a globalized economy, America's infrastructure is important to our competitive edge considering the overall cost of congestion. The Texas Transportation Institute estimates that, in 2010, congestion in 439 metropolitan areas caused urban Americans to travel 4.8 billion hours more and to purchase an extra 1.9 billion gallons of fuel for a congestion cost of \$101 billion. It's also important to employment. According to the American Road and Transportation Builders Association, the U.S. transportation design and construction industry generates more

than \$380 billion in economic activity annually and sustains 3.4 million American jobs—nearly three percent of the nation's Gross Domestic Product (GDP). **The Department of Transportation reports that every \$1 billion federally invested in highway capital supports nearly 37,500 American jobs.** 

Other steel-intensive infrastructure includes pipe for waterways, oil and natural gas exploration and distribution, and culverts and water tanks, to name a few examples. The energy sector is expected to be a strong source of

steel demand over the next 10 years, particularly as the nation's energy infrastructure is further developed. Electric companies alone will need to spend an estimated \$880 billion to strengthen our nation's electric distribution and transmission systems from 2010 to 2030 in order to maintain a reliable supply of electricity.

## **Electric Utility Distribution Poles**

Steel's profile as a green material has led to growing interest in replacing aging wood electric utility distribution poles with poles made of steel. Steel utility distribution poles have a number of clear advantages over competing materials (treated wood and concrete). These include ease of installation, reliability, durability, life cycle cost and environmental considerations. There are approximately 185 million utility distribution poles in North America. An estimated two to four million poles are replaced annually.

Since 1998, close to one million steel distribution poles have been installed, and are now being used by over 600 of 3,100 U.S. and Canadian electric utilities.





Research shows that all forms of fruits and vegetables canned, fresh, frozen and dried—are comparable in nutrition and offer important nutrients that make up a healthy diet.

# Container

**Steel cans are the most recycled food and beverage package in the world,** giving steel an important role in providing America with sustainable packaging for foods essential to a healthy diet.

Given the benefits canned foods offer including nutrition, convenience, value, versatility, year-round availability, economic impact and sustainability, AISI's Canned Food Alliance (CFA) works with Congressional offices and the U.S. Department of Agriculture (USDA) to ensure that canned foods play a role in federal food and nutrition programs. The USDA includes canned foods in the 2010 Dietary Guidelines for Americans and supports the inclusion of canned food in its Supplemental Nutrition Program for Women, Infants and Children (WIC). As the government and nutrition professionals strive to increase Americans' consumption of fruits and vegetables and key nutrients such as fiber and protein, canned foods provide year-round access to nutritious, affordable and convenient options.

Named a National Strategic Partner by the USDA in September 2011, CFA supports the USDA's Center for Nutrition Policy and Promotion mission to help educate Americans about the new 2010 Dietary Guidelines for Americans and the MyPlate food icon.

The CFA is also a member of the Produce For Better Health Foundation (PBH), the American Fruit and Vegetable Processors and Growers Coalition, the Society for Nutrition Education and Behavior (SNEB) and the National Fruit and Vegetable Alliance (NFVA), which includes the Center for Disease Control, U.S. Department of Agriculture, PBH, National Cancer Institute, American Cancer Society, state health departments and other respected organizations.

As part of the NFVA partnership, AISI has met with representatives of the First Lady's "Let's Move" initiative at the White House and is now working with several partners to place salad bars in thousands of schools over the next five years. For more information, visit www.mealtime.org.



Nutrition professionals suggest that to ignore one form over another limits consumer choice and denies

Americans access to critical nutrients most people are lacking in their diets.



Photo by Josh Haner/The New York Times/Redux

# **National Security**

It is vital to U.S. national economic security and to our homeland security that America does not become dangerously dependent on offshore sources of supply. Here are some examples of applications for domestic steel vital to America's infrastructure:

- ◆ Energy infrastructure such as petroleum refineries, oil and gas pipelines, storage tanks, electricity power generating plants, electric power 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 (MRAP vehicles) that have emerged in recent years, play an essential role in properly equipping and protecting U.S. troops in parts of the world such as Iraq and Afghanistan, and they utilize special armored steels and mild steels that are produced and developed in America.

**Military uses for steel are extensive.** Thousands of skilled men and women of the American steel industry work to produce high-quality, cost-competitive products that are used by the military 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.
- ◆ Steel is a strategic material needed to strengthen existing U.S. infrastructure and installations.

#### 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 mine-resistant ambush-protected (MRAP) vehicles use significant amounts of steel.

AISI has long identified commitment to sustainability as part of our industry's strategic plan. In line with that vision, the American steel industry is currently conducting research on the next generation of iron and steelmaking technologies that will dramatically reduce or eliminate  $CO_2$  emissions.

# **Breakthrough Technologies**

**U.S.** steelmaking processes are highly optimized because of advances and energy management over the last two decades. Efforts will be made to achieve further incremental improvements, but to make major reductions in future energy use, entirely new processes are required.

The American steel industry is conducting research on the next generation of iron and steelmaking technologies that will dramatically reduce or eliminate CO<sub>2</sub> emissions. These new "breakthrough technologies" are being developed over the next 10 to 15 years. Accordingly, any proposed CO<sub>2</sub> reduction regulations must recognize the time required for these technologies to first be fully developed and tested in order for them to become commercially available. Widespread adoption of new technology historically has proven to take from two to three decades in the steel industry.

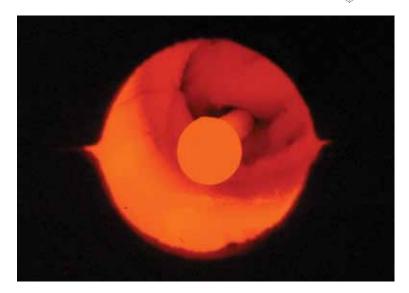
A project at Massachusetts Institute of Technology (MIT) is developing a process to produce iron by Molten Oxide Electrolysis (MOE), an environmentally friendly technology for the production of metals. MOE is a derivative of molten salt electrolysis, a technology that has been producing tonnage metal for over 100 years—aluminum is produced in this manner.

To produce iron by MOE, molten iron oxide is decomposed by the action of electric current into liquid iron and oxygen gas. What sets MOE apart from all other metal-producing technologies is that it is carbon-free and, except for GHG emissions in the production of electricity, generates no significant greenhouse gases.

The team at MIT has succeeded in demonstrating the technical viability of MOE by producing liquid metal and oxygen gas in a laboratory-scale cell. Promising results for a new proprietary low-cost, oxygen-evolving anode have been obtained. Next steps on the project involve the design, construction, and operation of a large-scale, self-heating lab cell which would provide all the information needed to design the first-generation industrial-scale cell.

#### **ELECTRODE SYNTHESIS**

The challenge for MOE is the development of an electrode material that sustains oxygen production while operating at elevated temperatures (in the vicinity of 1600°C) immersed in a highly aggressive melt. Recent work at MIT has discovered a suite of new candidate electrode materials. Research continues to determine the composition for optimum performance.







#### HYDROGEN FLASH SMELTER

This laboratory modified reactor at the University of Utah will be replaced with a larger-scale version in 2011 that will enable longer test runs providing necessary scale-up parameters for the design and construction of an industrial pilot plant.

At the University of Utah, researchers are developing a novel flash ironmaking process based on hydrogen and the direct gaseous reduction of iron oxide concentrates in a flash reduction process. "Flash Smelting" technology is adapted from mining processes and will operate using hydrogen, natural gas and/or coal as fuel. Due to the shale gas discoveries in the USA, the next phase of research will first prove the process on natural gas, thus effecting a logical progression from a natural gas based process for fines to one based on hydrogen. As is the case with MOE, this technology has the potential of significantly reducing environmental emissions even with a combination of these fuels.

AISI members are also developing the Paired Straight Hearth Furnace, a high-productivity, low-energy ironmaking unit that can process steel plant wastes, as well as virgin iron materials. Using coal instead of coke, this process will be available for commercial demonstration in less than five years.

These near term and longer term research and development projects could fundamentally change the way steel is produced and make clear steel's commitment to a sustainable future.

# The American Iron and Steel Institute (AISI)

Founded in 1855 as the American Iron Association, today's American Iron and Steel Institute history spans 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 American steel industry. Never has it been more critical than it is today for the American steel industry to speak out loud and clear and with a unified voice on major policy issues that are impacting American manufacturers.

The American Iron and Steel Institute's mission is to influence public policy, educate and shape public opinion in support of a strong, sustainable U.S. and 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 issues central to the steel industry, issues where AISI can make an impact and 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 (SMDI)

The Steel Market Development Institute (SMDI), a business unit of AISI, grows and maintains the use of steel through strategies that promote cost-effective solutions in the automotive, construction and container markets, as well as for new-growth opportunities in emerging steel markets. The Steel Market Development Institute investor companies are: AK Steel Corporation, ArcelorMittal Dofasco, ArcelorMittal USA, Evraz Inc. NA, Gerdau Long Steel North America, Nucor Corporation, Severstal North America Inc., SSAB Americas, ThyssenKrupp Steel USA, LLC, United States Steel Corporation and USS-POSCO Industries.

In partnership with these investing steel companies, the Steel Market Development Institute:

- ♦ WORKS WITH AUTOMOTIVE ENGINEERS to develop and promote lightweight future vehicle designs and the next generation of steel technologies;
- ◆ CONDUCTS RESEARCH, TECHNOLOGY TRANSFER AND MARKETING, and provides sustainable steel-based solutions to challenges faced in the commercial and residential construction sectors, transportation and infrastructure sectors, and energy sectors through its Construction Market program. This includes the development and maintenance of building codes and standards;
- ◆ INTERFACES WITH LEGISLATORS at the federal and state levels to inform them about the importance of including nutritional canned food in national programs for schoolchildren; and
- ◆ STRATEGIZES WITH ALL STAKEHOLDERS—from customers to political leaders—in all markets to determine how to provide steel-based solutions to their critical marketplace challenges.

# The Steel Recycling Institute (SRI)

The Steel Recycling Institute (SRI) is an industry association dedicated to communicating the sustainable efforts of the North American steel industry. The SRI educates the solid waste industry, government, business and ultimately the consumer about the benefits of steel's recycling accomplishments and advancements in sustainability.

# AISI Producer Members and their Locations in North America

#### A. FINKL & SONS CO.

North American Locations Headquarters: Chicago, IL

U.S.

California

Southgate

Michigan

Warren

Minnesota

Minneapolis

Ohio

Tallmadge

A. Finkl & Sons Co. has additional locations in Canada and Mexico

North American Production: Processes over 100,000 tons

#### **AK STEEL CORPORATION**

**North American Locations** 

Headquarters: West Chester, OH

U.S. Indiana

Columbus: Tubular steel

Rockport: Continuous carbon/stainless pickling line, continuous carbon/stainless cold mill, stainless continuous annealing/pickling line, hydrogen annealing, temper mill, off-line coil inspection and continuous hot-dip galvanizing/galvannealing line

Kentucky

Ashland: Galvanized strip, galvannealed strip

Minnesota

Nashwauk: Magnetation LLC (a joint venture of which AK Steel owns 49.9%)—iron ore concentrate from previously

mined ore reserves

Ohio

Coshocton: Stainless steels in cold rolled strip, sheet coils Mansfield: Flat rolled carbon, silicon, ferritic stainless

Middletown: Enameling iron, electro galvanized, hot dip galvanized, hot-dip aluminized, hot-dip aluminized stainless

Walbridge: Tubular steel

Zanesville: Oriented and non-oriented, electrical steel,

stainless flat rolled

Pennsylvania

Butler: Hot rolled, cold rolled, stainless, oriented and

non-oriented electrical flat-rolled

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

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

U.S. Texas

San Antonio: Sales office

North American Production: 4.1 million tons

### ARCELORMITTAL NORTH AMERICA

North American Locations Headquarters: Chicago, IL

CANADA Ontario

Brampton: Tube

Hamilton (Dofasco): Flat, Tube

London: Tube Windsor: Flat Woodstock: Tube

Quebec

Fire Lake: Mine

Montreal (Contrecoeur East): Long Montreal (Contrecoeur West): Long

Montreal (Longueuil): Long

Mount-Wright: Mine

Port-Cartier: Pellet Plant and Port

St. Patrick: Long

MEXICO Guanajuato Celaya: Long

Michoacan

Lazaro Cardenas: Flat and Long

Nuevo León Monterrey: Tube

U.S. Illinois Riverdale: Flat

Indiana

Burns Harbor: Flat and plate

East Chicago: Flat, long, and global research and

development center

New Carlisle: I/N Tek and I/N Kote (joint venture with

Nippon Steel): Flat

Kentucky

Ghent (Gallatin): Flat (joint venture with Gerdau Ameristee

**Louisiana** LaPlace: Long Minnesota

Virginia: Minorca Mine

Hibbing Taconite: Mine (joint venture with U.S. Steel and

Cliffs Natural Resources)

**North Carolina** 

Piedmont (Newton): Plate

Ohio

Cleveland: Flat
Columbus: Flat
Marion: Tube
Shelby: Tube
Warren: Coke

Pennsylvania

Coatesville: Plate Conshohocken: Plate Monessen: Coke (idled)

Steelton: Long

South Carolina

Georgetown: Long

Texas

West Virginia
Princeton: Mine
Weirton: Flat

Vinton: Long

North American Shipments: approximately 21 million tons

**BERG STEEL PIPE CORP** 

North American Locations
Headquarters: Panama City, FL

U.S. Alabama

Mobile: Spiral pipe

Florida

Panama City: Steel pipe 24 through 64-in. OD; wall thickness

0.250 through 1.5 inches

Texas

Houston: Sales office

North American Production: 550,000 tons

### **CALIFORNIA STEEL INDUSTRIES**

North American Locations Headquarters: Fontana, CA

U.S. California

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

electrical resistance welded pipe

North American Production: 1.5 million tons

#### **CLIFFS NATURAL RESOURCES**

North American Locations
Headquarters: Cleveland, OH

CANADA Quebec

Fermont: Bloom Lake (mine)

Montreal: Cliffs Quebec Iron Mining Limited

Ontario

Thunder Bay: Cliffs Chromite Far North Inc.

Toronto: Cliffs Chromite Far North Inc.

U.S.

**North American Iron Ore** 

Michigan

Ishpeming: Tilden Mine Palmer: Empire Mine

Minnesota

Babbitt: Northshore Mining Company (mine)

Duluth: Shared services Eveleth: United Taconite (mine)

Forbes: United Taconite (processing facility)

Hibbing: Hibbing Taconite

Silver Bay: Northshore Mining Company (processing facility)

**North American Coal** 

Alabama

Adger: Oak Grove Mine

#### West Virginia

Man: Cliffs Logan County Coal Pineville: Pinnacle Complex

Cliffs is organized through a global commercial group responsible for sales and delivery of products and a global operations group responsible for the production of the minerals it markets. In addition to its North American operations, Cliffs is a significant supplier of steelmaking raw materials in the Asia Pacific region, with two iron ore mining complexes in Western Australia, and an economic interest in a coking and thermal coal mine in Queensland, Australia. Cliffs also has a major chromite project in the pre-feasibility stage of development in Ontario, Canada, and a business presence, Cliffs Natural Resources Exploration Chile Ltda., located in Santiago, Chile.

North American Iron Ore: 38.4 million tons North American Coal: 9.4 million tons

#### **COMPANIA SIDERURGICA HUACHIPATO**

North American Locations Headquarters: Chile

CHILE

Concepcion (Bio-Bio Region)

Talcahuano: Coke production, steelmaking, reinforcing round, wire rod, grinding bars, hot rolled, cold rolled

and galvalume

#### DEACERO, S.A. DE C.V.

**North American Locations** 

Headquarters: San Pedro Garza Garcia, Nuevo León-Mexico

MEXICO

Baja California

Mexicali: Wire products
Tijuana: Distribution Center

Coahuila

Ramos Arizpe/Saltillo: Steelmaking, billet, wire rod, rebar,

wire products

Distrito Federal

Delegacion Gustavo A. Madero: Scrap recollection center

Estado de Mexico

Tlalneplanta: Wire products, scrap recollection center,

sales office

Tultitlan: Scrap recollection center, distribution center

Guanajuato

León: Wire products

Irapuato: Distribution center

Villagran/Celaya: Steelmaking, billet, wire rod, rebar, wire

products

Jalisco

El Salto: Sales office

Guadalajara: Scrap recollection center, distribution center

Michoacan

Morelia: Wire products

Nuevo León

Apodaca: Distribution center

Guadalupe: Wire products, scrap recollection center

Santa Catarina: Wire products

San Nicolas de los Garza: Scrap recollection center

San Pedro Garza Garcia: Sales office

Puebla

Puebla: Wire products, scrap recollection center, sales

office, distribution center

**Oueretaro** 

Queretaro: Wire products

San Luis Potosi

San Luis Potosi: Distribution center

Sinaloa

Culiacan: Distribution center

Sonora

Hermosillo: Scrap recollection center

Tabasco

Villa Hermosa: Distribution center

**Tamaulipas** 

Matamoros: Scrap recollection center

Veracruz

Veracruz: Distribution center

U.S.

Indiana

Indianapolis: Distribution center

**Texas** 

Houston: Deacero USA, Inc. (wire products and sales office)

Laredo: Distribution center

New Braunfels: Stay Tuff Fence Manufacturing, Inc.

(wire products)

North American Production: 2.7 million tons

**DTE ENERGY SERVICES** 

North American Locations Headquarters: Ann Arbor, MI

U.S.

Indiana

**Burns Harbor** 

Maryland

Baltimore

Michigan

River Rouge

Pennsylvania

Pittsburgh

**North American Production:** Among the many energy operations of DTE are steel mill coke and coal operations and other steel industry fuel-related projects.

**EVRAZ INC. NA** 

North American Locations
Headquarters: Portland, OR

U.S.

Colorado

Pueblo: Rails, billets and special sections, wire rods, coiled

rebar, bar, seamless pipe

#### **Delaware**

Claymont: Cast slabs, plate, custom burned plate

#### Oregon

Portland: Plate and coil, heat treating, large diameter line pipe, structural tubing

#### CANADA

#### Saskatchewan

Regina: Plate and coil, cut-to-length sheet and plate, large diameter line pipe, medium diameter ERW pipe, small diameter OCTG & line pipe, research and development

#### Alberta

Calgary: Small diameter OCTG, heat treating

Camrose: Large diameter line pipe, medium and small

diameter ERW pipe

Red Deer: Small diameter OCTG and line pipe, HSS

#### **British Columbia**

Surrey: Cut-to-length sheet & plate, coils

North American Production: 2.5 million tons

#### **GERDAU LONG STEEL NORTH AMERICA**

# North American Locations Headquarters: Tampa, FL

#### U.S.

#### Alabama

Birmingham: Rebar fabrication Trussville: Rebar fabrication

#### **Arkansas**

Little Rock: Rebar fabrication

Paragould: Rail spikes, rebar fabrication

#### California

Rancho Cucamonga Steel Mill: Rebar

#### Florida

Fort Lauderdale: Rebar fabrication

Jacksonville: Billets, rebar, rebar coil, wire rod

Jacksonville: Rebar fabrication

Tampa: Rebar fabrication, Technical Resource Center

#### Georgia

Albany: Rebar fabrication
Atlanta: Rebar fabrication

Cartersville Steel Mill: Billets, angles, unequal angles, flats,

channels, MC channels, WF beams, S beams

Cartersville: Rebar fabrication Savannah: Rebar fabrication

#### Illinois

Belvidere: Rebar fabrication
Decatur: Rebar fabrication
Joliet Steel Mill: Flats, squares
Sterling: Rebar fabrication
Urbana: Rebar fabrication

#### Indiana

Muncie: Rebar fabrication

#### lowa

Eldridge: Rebar fabrication

Wilton Steel Mill: Billets, squares, angles, unequal angles,

flats, rebar

#### Kentucky

Calvert City Steel Mill: Angles, unequal angles, flats,

channels, MC channels

Louisville: Rebar fabrication

#### Louisiana

New Orleans Express Shop: Rebar fabrication

#### Minnesota

Duluth: Grinding balls

St. Paul Steel Mill: Billets, carbon and alloy rounds, rebar

#### Missouri

Independence: Rebar fabrication Kansas City: Rebar fabrication St. Louis: Rebar fabrication

#### **New Jersey**

Perth Amboy: Rebar fabrication

Sayreville Steel Mill: Rebar, rebar fabrication

#### **North Carolina**

Charlotte Steel Mill: Billets, rounds, angles, unequal angles,

flats, channels, rebar, rebar fabrication

Raleigh: Rebar fabrication

Ohio

Cincinnati: Rebar fabrication

Orrville: Bright bar, cold drawn steel

Oklahoma

Muskogee: Rebar fabrication
Oklahoma City: Rebar fabrication

Sand Springs: Rail spikes, rebar, rounds, flats, studded

"T" fence post

Pennsylvania

York: Rebar fabrication Lancaster: Rail spikes

Tennessee

Arlington: Rebar fabrication

Jackson Steel Mill: billets, squares, angles, unequal angles,

flats, channels, rebar

Johnson City: Rebar fabrication

Knoxville Steel Mill: Billets, rebar, rebar fabrication,

plain round

Knoxville: Rebar fabrication Memphis: Rebar fabrication Nashville: Rebar fabrication

Texas

Beaumont Steel Mill: Billets, rebar coil, wire rod

Beaumont: Rebar fabrication

Carrollton: Wire rod
Dallas: Rebar fabrication
Houston: Rebar fabrication

Midlothian Steel Mill: Billets, Bantam® beams, S beams, WF beams, rebar, rounds, squares, channels, H piling,

sheet piling

Virginia

King George: Rebar fabrication

Petersburg Steel Mill: WF beams, H piling, sheet piling

#### Wisconsin

Appleton: Rebar fabrication

Madison: Rebar fabrication

CANADA

Ontario

Cambridge: Rebar, rounds, flats, angles, channels, squares,

billets

Oshawa: Raw materials recycling

Whitby: Angles, rebar, flats, channels, beams, billets

Manitoba

Selkirk: Special sections, SBQ, merchant, rebar, light and

medium structural angles, channels

North American Production: 11.7 million tons

#### **GERDAU SPECIAL STEEL NORTH AMERICA**

North American Locations Headquarters: Jackson, MI

U.S.

**Arkansas** 

Fort Smith Mill: Producer—engineered special bar quality carbon, alloy and bearing steel bars (hot and cold finish)

(Ft Smith, AR)

Indiana

Huntington Facility: Heat treating, quench and temper

(Huntington, IN)

North Vernon Facility: Heat treating, cleaning and coating

(North Vernon, IN)

Michigan

Jackson Mill: Producer-engineered special bar quality carbon, alloy and bearing steel bars (hot and cold finish)

(Jackson, MI)

Monroe Mill: Producer—engineered special bar quality carbon, alloy and bearing steel bars (hot and cold finish)

(Monroe MI)

Lansing Mt Hope Facility: Heat treating, cleaning and

coating (Lansing, MI)

Lansing Basset Facility: Heat treating, cleaning and coating

(Lansing, MI)

Ohio

Canton Facility: Heat treating, cleaning and coating (Canton, OH)

Wisconsin

Pleasant Prairie Facility: Nitro Steel® nitride steel bars (Pleasant Prairie, WI)

North American Production: 1.3 million tons

#### **HARSCO METALS & MINERALS**

#### **North American Locations**

**Headquarters**: Harsco Metals and Minerals, Camp Hill, PA Metals America, Cranberry Township, PA

Harsco Minerals, Mechanicsburg, PA

U.S. Michigan
Alabama Detroit
Birmingham Ecorse
Gadsden Missouri
Arkansas Clifton Hill
Blytheville Matston

Colorado North Carolina

Pueblo Cofield

Illinois Ohio

Pawnee Chester

Pekin Warren

Indiana Niles

East Chicago Waterford

East Chicago Waterford
Gary Pennsylvania
Highland Braddock
Pittsboro Butler
Whiting Fairless Hills

IowaLatrobeMuscatineKoppelMidland

Kansas Natrona Heights
LaCygne

Kentucky Steelton
Ashland West Mifflin

Drakesboro

Ghent

Tennessee Quebec

Memphis Contrecoeur

Texas Sorel-Tracy

Houston MEXICO

Midlothian Coahuila

Rockdale Saltillo

Utah Durango

Provo Lazaro Cardenas

West Virginia
Moundsville
Celaya

CANADA
Nuevo León
Ontario
Apodaca
Cambridge
Hamilton
Nanticoke
Apizaco

GUATEMALA Escuintla

**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 Locations** 

Headquarters: l'Orignal, Ontario, Canada

Ontario

Whitby

l'Orignal: Hot rolled steel wire rod, billet

North American Production: 900.000 tons

#### NUCOR CORPORATION

North American Locations Headquarters: Charlotte, NC

U.S. Alabama

American Buildings Company Alabama, Eufaula: Metal

**Buildings Systems** 

Nucor Steel Birmingham, Birmingham: Carbon steel reinforcing bar, rounds, squares

Nucor Steel Decatur LLC, Trinity: Carbon steel sheet in hot rolled, pickled, cold rolled, galvanized, galvannealed Nucor Steel Tuscaloosa, Tuscaloosa: Carbon and high strength alloy, hot rolled coil and cut-to-length plate for structural and pressure vessel applications

Vulcraft Alabama, Fort Payne: Carbon steel in joists, joist girders, composite floor joist, and floor and roof deck Harris Steel, Harris Rebar, Pell City: Rebar

#### Arkansas

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

#### Arizona

Harris Steel-Harris Rebar, Phoenix: Rebar Harris Steel-Harris Rebar, Tuscon: Rebar

Nucor Steel Kingman, Kingman: Carbon steel reinforcing bar, wire rod

Verco Decking, Phoenix: Steel floor, roof deck

#### California

CBC Steel Buildings, Lathrop: Metal building systems

Harris Steel-Harris Rebar, Lakeside: Rebar Harris Steel-Harris Rebar, Diamond Bar: Rebar Harris Steel-Harris Rebar, Fresno: Rebar Harris Steel-Harris Rebar, Livermore: Rebar Harris Steel-Harris Rebar, Pamona: Rebar

Nucor Trading USA, Los Angeles: Steel trading services

Verco Decking, Antioch: Steel floor, roof deck Verco Decking, Fontana: Steel floor, roof deck

#### Colorado

Harris Steel-Harris Rebar, Commerce City: Rebar

#### Connecticut

Harris Steel-Barker Street, South Windsor: Fabricating shop, decorative concrete, building products, rebar sales Nucor Steel Connecticut, Wallingford: Carbon steel reinforcing bar, wire rod, wire mesh fabrication, structural mesh fabrication, rolled wire, deformed wire

#### Florida

Harris Steel-Nufab Rebar, Milton: Rebar Harris Steel-Nufab Rebar, Zellwood: Rebar

#### Hawaii

Harris Steel-Nufab Rebar, Kapolei: Rebar

#### Idaho

Harris Steel-Nufab Rebar, Meridian: Rebar

#### Illinois

American Buildings Company Illinois, El Paso: Metal building systems

Harris Steel-Nufab Rebar, Belvidere: Rebar

Harris Steel-Ambassador Steel Fabrication, Bourbonnais: Rebar

Harris Steel-Ambassador Steel Fabrication, Rochelle: Rebar Nucor Steel Kankakee, Bourbonnais: Carbon steel angles, rounds, flats, reinforcing bar

#### Indiana

Harris Steel-Ambassador Steel Fabrication, Auburn: Corporate Offices

Harris Steel-Ambassador Steel Fabrication, Mooresville: Rebar

Nucor Building Systems Indiana, Waterloo: Metal building systems

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

Nucor Steel Indiana, Crawfordsville: Carbon steel sheet in hot rolled, cold rolled, pickled, floor plate and galvanized coils; stainless steel in hot rolled, cold rolled, pickled coils Vulcraft Indiana, St. Joe: Carbon steel in joist, joist girders, composite floor joist, and floor and roof deck

#### Iowa

Harris Steel-Ambassador Fabrication, Newton: Rebar

### Kentucky

Harris Steel-Fisher & Ludlow, Florence: Bar and safety grating, expanded metals products

#### Louisiana

Harris Steel-Nufab Rebar, Alexandria: Rebar Harris Steel-Nufab Rebar, Slidell: Rebar

#### Maine

Harris Steel-Barker Steel, Scarborough: Rebar, building product sales

#### Massachusetts

Harris Steel-Barker Steel, Canton: Fabricating shop; building products, forming sales

Harris Steel-Barker Steel, South Deerfield: Fabricating shop, rebar sales

Harris Steel-Barker Steel, Milford: Rebar, forming sales Harris Steel-Barker Steel, Westfield: Fabricating shop

### Michigan

Harris Steel-Ambassador Steel Fabrication, Comstock Park: Rehar

Harris Steel-Ambassador Steel Fabrication, Lansing: Rebar

#### Minnesota

Harris Steel-Ambassador Steel Fabrication, Minneapolis: Rebar

#### Mississippi

Nucor LMP Steel Inc., Maryville: Cold finished bar and wire Gulf States Manufacturing, Starkville: Metal Buildings Systems

Nucor Steel Jackson, Jackson: Carbon steel angles, flats, reinforcing rounds, squares

#### Missouri

Nucor LMP Steel Inc., Maryville: Cold finished bar and wire Harris Steel–Ambassador Steel Fabrication, Kansas City: Rebar

Harris Steel-Nufab; Ambassador Steel Fab., St. Louis: Rebar

#### Nebraska

Nucor Cold Finish Nebraska, Norfolk: Carbon, leaded and alloy cold drawn steel bar

Nucor Steel Nebraska, Norfolk: 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 Vulcraft Nebraska, Norfolk: Carbon steel in joists, joist girders, composite floor joists, and floor and roof deck

#### Nevada

American Buildings Company Nevada, Carson City: Metal Building Systems

Harris Steel-Harris Rebar, Moundhouse: Rebar

#### **New Hampshire**

Harris Steel-Barker Street, Canaan: Fabricating shop, structural steel, rebar and building product sales

#### **New Jersey**

Harris Steel-Barker Street, Avenel: Fabricating shop; rebar, building product sales

#### **New Mexico**

Harris Steel-Harris Rebar, Albuquerque: Rebar

#### **New York**

Harris Steel-Barker Steel, Albany: Fabricating shop, rebar, product sales

Harris Steel-Barker Steel, Long Island City: Building product sales

Nucor Steel Auburn, Auburn: Carbon steel angles, channels, flats, reinforcing bars, rounds, squares

Vulcraft New York, Chemung: Carbon steel in joists, joist girders, composite floor joists, special profile steel trusses, and floor and roof deck

#### **North Carolina**

Nucor Corporation, Charlotte: Corporate Office Nucor Steel Hertford County, Cofield: Carbon steel plate Harris Steel, Fisher & Ludlow, Charlotte: Bar and safety grating; expanded metals products

#### Ohio

Harris Steel-Ambassador Steel Fabrication, Marion: Rebar Nucor Steel Marion, Marion: Carbon steel angles, flats, rebar, rounds, signposts

#### Oregon

Harris Steel-Harris Rebar, Portland: Rebar

#### Pennsylvania

Harris Steel-Harris Rebar, Bethlehem: Rebar

Harris Steel-Fisher & Ludlow, Wexford: Bar, safety grating; expanded metals products

Harris Steel, Fisher & Ludlow, Saegertown: Bar and safety grating; expanded metals products

Harris Steel, Fisher & Ludlow, McKees Rocks: Bar and safety grating; expanded metals products

Nucor Wire Products Pennsylvania, New Salem: Standard and custom wire products including wire rack decking, light weight galvanized mesh, mine mesh and engineering mesh

#### Rhode Island

Harris Steel–Barker Steel, Pawtucket: Fabricating shop; rebar, building products and forming sales

#### **South Carolina**

Nucor Building Systems South Carolina, Swansea: Metal Building Systems

Nucor South Carolina, Darlington: Carbon leaded and alloy cold drawn steel bars, carbon steel in special bar quality; merchant bar quality; and reinforcing products in the following shapes: angles, channels, flats, hexagons, reinforcing bars, rounds Nucor Steel Berkeley, Huger: Carbon steel sheet in hot rolled, cold rolled, pickled, galvanized, and galvannealed coils, carbon steel wide range beams, manufacturing housing beams, standard I beams, miscellaneous and standard channels

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

#### Tennessee

Nucor Steel Memphis, Memphis: Carbon steel in special bar quality rounds, round cornered squares

Kirby Building Systems, Portland: Metal Building Systems

#### Texas

Harris Steel-Nufab Rebar, Dayton: Rebar
Harris Steel, Nufab Rebar, Longview: Rebar
Nucor Building Systems, Terrell: Metal Building Systems
Nucor Steel, Denton: Light gauge steel panels, trusses
Nucor Steel Texas, Jewett: Carbon steel angles, channels,
flats, reinforcing bars, rounds, special sections, squares,
U.M. plates

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

#### Utah

Nucor Building Systems, Brigham City: Metal Building Systems Nucor Cold Finish Utah, Brigham City: Cold finished SBQ bar products, cold rolled wire, welded wire mesh

Nucor Steel Utah, Plymouth: Carbon steel angles, channels, flats, reinforcing bars, rounds, squares

Nucor Wire Products Utah, Brigham City: Carbon steel standard mesh, mine mesh, rolled wire

Vulcraft Utah, Brigham City: Carbon steel in joists, joist girders, composite floor joists, special profile steel trusses

#### Virginia

American Buildings Company Atlantic Region, LaCrosse: Metals Building System

#### Washington

Harris Steel-Harris Rebar, Auburn: Rebar Harris Steel-Harris Rebar, Lake Stevens: Rebar Harris Steel-Harris Rebar, Port of Tacoma: Rebar Nucor Steel Seattle, Seattle: Carbon steel angles, channels, flats, reinforcing bar, rounds, squares

#### Wisconsin

Harris Steel-Ambassador Steel Fabrication, Menomomie: Rebar

Harris Steel-Ambassador Steel Fabrication, Waukesha: Rebar

Nucor Cold Finish Wisconsin, Oak Creek: Carbon, leaded, alloy cold drawn steel bars

North American Production: 20.0 million tons

#### **David J. Joseph, Co.** (a Nucor Subsidiary)

David J. Joseph, Co. is a scrap subsidiary of Nucor Corporation and has numerous locations in the following states: Alabama, Colorado, Florida, Illinois, Indiana, Kansas, Kentucky, Missouri, Nebraska, Nevada, New Mexico, North Carolina, Ohio, Pennsylvania, South Carolina, Texas, Utah

#### Harris Steel Group (a Nucor Subsidiary)

#### CANADA

#### Alberta

Harris Rebar, Calgary: Rebar

Fisher & Ludlow, Edmonton: Bar and safety grating,

expanded metals products

Fisher & Ludlow, Wetaskiwin: Bar and safety grating,

expanded metals products

Harris Rebar, Fort Saskatchewan: Rebar

Harris Rebar, Leduc: Rebar

#### **British Columbia**

Harris Rebar, Abbotsford: Rebar Harris Rebar, Kelowna: Rebar Harris Rebar, Nanaimo: Rebar

Fisher & Ludlow, Surrey: Bar and safety grating, expanded

metals products

Harris Rebar, Delta Vancouver: Rebar

#### **New Brunswick**

Harris Rebar, St. John: Rebar

#### **New Foundland**

Harris Rebar, Mount Pearl: Rebar

#### **Nova Scotia**

Harris Rebar, Dartmouth: Rebar

#### **Ontario**

Harris Steel Group, Stoney Creek: Corporate Headquarters

Harris Rebar, Ontario, Brampton: Rebar

Fisher & Ludlow, Burlington: Bar and safety grating,

expanded metal products Harris Rebar, Hamilton: Rebar Harris Rebar, London: Rebar Harris Rebar, Mississauga: Rebar Harris Rebar, Ottawa: Rebar

Harris Rebar, Sarnia: Rebar Harris Rebar, Scarborough: Rebar Harris Rebar, Sudbury: Rebar Harris Rebar, Thunder Bay: Rebar

Harris Rebar, Maidstone, Windsor: Rebar

Harris Rebar, Laurel, Burlington: Cold-finish steel bars,

welded wire mesh, cold-drawn wire

#### Manitoba

Harris Rebar, Winnepeg: Rebar

#### Quebec

Harris Rebar, Longueuil, Montreal: Rebar

Fisher & Ludlow, Point Aux Trembles: Bar and safety grating,

expanded metals products

#### Saskatchewan

Harris Rebar, Regina: Rebar Harris Rebar, Saskatoon: Rebar

#### SEVERSTAL NORTH AMERICA, INC.

# North American Locations

Headquarters: Dearborn, MI

U.S.

# Michigan

**Dearborn:** Slabs, hot and cold rolled sheet, electrogalvanized sheet, hot-dip galvanized sheet

#### Mississippi

Columbus: Hot rolled, cold rolled and galvanize/galvanneal coated products, including high-quality surface steels for exposed automotive applications

North American Production: 5.5 million tons (cast steel

production)

# **SSAB AMERICAS**

**North American Locations** 

Headquarters: Lisle, IL

U.S. Alabama

Mobile: 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

North American Production: 2.5 million tons

**TENARIS TAMSA** 

**North American Locations** 

Headquarters: Mexico City, Mexico

U.S. 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)
McCarty/Houston: Hydril Company (threading facility)
Downhole Center/Houston: Tenaris Coiled Tubes, LLC

(coiled tubes facility)

Subsea Center/Houston: Tenaris Coiled Tubes, LLC

(coiled tubes facility)

Houston: Texas Arai (couplings facility)

CANADA Ontario

Saulte Ste.: Algomatubes Inc. (seamless steel tubes)

Alberta

Calgary: Prudential Steel Ltd. (welded steel tubes)

Nisku: Hydril Canadian Company Ltd (threading facility)

MEXICO

**Tenaris Tamsa** 

Veracruz: Seamless steel tubes, R&D Center, threading facility

Tabasco

Comalcalco: Threading facilities

North American Production: 1.5 million tons

**TERNIUM** 

**North American Locations** 

Headquarters Location: Monterrey, Mexico

**MEXICO** 

Coahuila

Monclova: Galvanized and color coated steel

Nuevo León

Apodaca: Billets, rebars

Ciénega de Flores: Steel buildings

San Nicolás: HRC, CRC, profiles and tubes, panels,

galvanized and color coated coils, rollformed

Puebla

Puebla: Rebar, wire rod

U.S.

Louisiana

Shreveport: Galvanized, color coated sheets

Puebla

Puebla: Rebar, wire rod

**Product Distribution Centers/Service Centers** 

Baja California

Tijuana

Chiapas

Túxtla Gutierrez

Chihuahua

Chihuahua

**Distrito Federal** 

Ciudad de México

Jalisco

Guadalajara

Nuevo León

**Apodaca** 

Puebla

Puebla

Yucatán

Mérida

#### San Luis Potosí

San Luis Potosí

#### Sinaloa

Culiacán

#### Veracruz

Veracruz

#### Mines

#### Colima

Peña Colorada (Ternium Share 50%)

Cerro Náhuatl

Piscila/Cayacal (in exploration)

#### Jalisco

El Encino

Sierra del Alo (exploration process)

#### Michoacán

Aquila

Colomera (in exploration)

North American Production: 7.5 million tons

#### THE TIMKEN COMPANY

# North American Locations Headquarters: Canton, OH

# U.S. Arizona

**Mesa:** Timken Aerospace Aftermarket Solutions (products and services)

#### California

Los Alamitos: Timken Bearing Inspection Inc. (aerospace)

#### Connecticut

Manchester: Timken Aerospace Transmissions, LLC (gearboxes and transmissions for military and commercial aircraft) Manchester: Technology Engineering Center (aerospace)

#### Georgia

Ball Ground (Canton): Green Ring Plant (small facility)

#### Illinnie

Fulton: Timken Drives

#### Indiana

South Bend: South Bend Plant (reconditioning and remanufacturing of antifriction roller bearings)

#### **New Hampshire**

**Keene:** Technology center and Timken Super Precision (health and positioning control bearing products)

Lebanon: Timken Aerospace (precision bearings for aerospace)

#### **North Carolina**

Columbus (Tyron Peak): Timken STEEL Value added processing Iron Station (Lincolnton): Bearing Plant (mobile and industrial) Randleman (Asheboro): Bearing Plant (industrial and

aerospace)

Rutherfordton (Shiloh): Bearing Plant (aerospace)

#### Ohio

Bucyrus: Bearing Plant (mobile and industrial)
Canton: Harrison STEEL (Alloy steel bars)
Canton: Faircrest STEEL (Alloy steel bars, billets)

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Canton: Gambrinus Roller Plant (Rollers for roller bearings)

Canton: Gambrinus STEEL (Seamless tubing) (NOTE: Timken does not produce sheet metal)

Canton: Sales and administrative offices, Timken Bearings

& Power Transmission and STEEL

Eaton (St. Clair): STEEL (Specialty steel components for

vehicles)

New Philadelphia: Bearing Plant (precision aerospace a

industrial)

Niles: Industrial Services Plant (life-extending surface

technologies)

North Canton: Technology Engineering Center (global

engineering headquarters)

#### Pennsylvania

King of Prussia: Timken Gears & Services, Inc.

#### **South Carolina**

**Duncan:** Distribution Center

Gaffney: Bearing Plant (mobile and aerospace)

Honea Path: Bearing Plant (mobile)

Union (Tyger River): Bearing Plant (Ultra-large-bore tapered roller bearings for wind turbines and large machinery

Union (Tyger River): Industrial Service Center

#### Tennessee

Mascot (Knoxville): Sales office and Rail Bearing Services

Facility

Pulaski: Bearing Plant (industrial bearings, housed units and components)

#### Texas

Houston: Timken Boring Specialties, LLC (STEEL) Value

added processes

Virginia

Altavista: Bearing plant

Washington

Ferndale: Bearing plant

North American Production: 1.2 million tons

#### THYSSENKRUPP STEEL USA, LLC

North American Locations Headquarters: Calvert, AL

U.S.

Alabama

Calvert

Operations: (1) Hot Strip Mill, (1) Independent Continuous Pickling Line, (1) Continuous Pickling/Cold Reducing Mill,

(1) Continuous Anneal Line, (3) Coating Lines Products: Hot rolled, Cold rolled, pickle and oiled, galvanized, galvannealed, aluminized and galvalume

Michigan

Detroit: Automotive Sales office

**North American Production:** 2.5 million tons (estimated for 2012), 4.5 million steady state full production (2013).

**Markets Served:** Automotive, Pipe and Tube, Appliance/ HVAC, Construction, Heavy Equipment, Distribution.

#### UNITED STATES STEEL CORPORATION

North American Locations
Headquarters: Pittsburgh, PA

U.S. Alabama

Fairfield: Slabs, rounds, sheets, seamless tubular mill

Arkansas

Pine Bluff: Tubular couplings

California

Pittsburg: JV USS-POSCO Industries (sheets and tin mill) and JV United Spiral Pipe, LLC (spiral welded tubular)

Illinois

Granite City: Sheets, slab and coke

Indiana

East Chicago: Tin mill

Gary: Slabs, tin mill, sheets, strip mill plate, coke

Portage: Sheets and tin mill

Michigan

Canton: JV Worthington Specialty Processing (steel processing)

Dearborn: JV Double Eagle Steel Coating Company

(Galvanized sheets)

Ecorse and River Rouge: slabs and sheets

Ishpeming: Tilden Mining Company (Iron ore pellets)

Jackson: JV Double G Coatings Company, L.P. (Galvanized

and GALVALUME® sheets)

Taylor: JV Worthington Specialty Processing (steel processing)

#### **Minnesota Mining Operations**

Hibbing: Hibbing Taconite Company (iron ore pellets)

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® sheets)

Ohio

Leipsic: JV PRO-TEC Coating Company (Galvanized sheets)

Lorain: Seamless tubular

# Pennsylvania

Braddock: Slabs

Fairless Hills: Galvanized Sheets

Clairton: Coke

McKeesport: Welded tubular

West Mifflin: Sheets

Munhall: Research and Technology Center

Texas

Bellville: Welded tubular

Hughes Springs: Tubular couplings

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

Lone Star: Welded tubular

# CANADA

#### **Alberta**

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

Ontario

Beamsville: JV Chrome Deposit Corporation: Processing,

administrative)

Hamilton: JV Baycoat (Finishing)

Hamilton: Hamilton Works: (Steelmaking, finishing, coke

production)

Nanticoke: Lake Erie Works (Steelmaking, finishing, coke

production)

Stoney Creek: JV D.C. Chrome Limited (Processing and

joint venture)

#### **MEXICO**

#### Coahuila

Ramos Arizpe: JV Acero Prime (Processing, warehousing)

Sam Luis Potosi

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

North American Production: 24.3 million tons

#### **USS-POSCO INDUSTRIES**

North American Locations
Headquarters: Pittsburg, CA

California

Pittsburg: Sheet products and tin mill

North American Production: 1 million tons

# **Associate Members**

Accenture

ADS Logistics Co LLC

Aether DBS

AKJ Industries, Inc.

Albemarle Environmental Division

Algoma Central Corporation

Almatis, Inc.

Alphabet Energy

Alpha Natural Resources

American Steamship Company

ASKO, Inc.

ATSI, Inc.

**Avalotis Corporation** 

Babst, Calland, Clements & Zomnir, P.C.

Bahco

Bailey PVS Oxides
Baosteel America Inc.
Barnes & Thornburg
BASF Corporation

Beemsterboer Slag Corporation Berkeley Research Group, LLC

Berry Metal Company Bricmont, Inc.

Carmeuse Lime and Stone

Castrip, LLC

Castrol Industrial North America Inc.

Cattron Group International

ChemTreat, Inc.

Chrome Deposit Corporation

Consolidated Terminals and Logistics Co.

Core Furnace Systems Corporation

CSX Transportation
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ITW Buildex

JMC Steel Group

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Lhoist North America Longbow Research M.K. Technologies Inc. Magneco/Metrel, Inc.

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Magotteaux, Inc.
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Nalco Company
National Material, L.P.

New Millenium Building Systems

Nippon Steel USA, Inc. Norfolk Southern Corporation

North American Refractories Company

Northrop Grumman Corporation

ODERCO Inc.
O'Neal Steel, Inc.

Oracle

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P.I. & I. Motor Express
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Pepper Hamilton LLP

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PLS Logistics Services
POSCO America Corp.

Praxair, Inc.

PricewaterhouseCoopers LLP

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Process Metrix LLC PSC Metals. Inc.

Reference Metals Company River Hill Coal Company

Robindale Energy & Associated Companies

Schneider Electric Sector3 Appraisals, Inc.

SES. LLC

SGL Carbon Corporation, LLC Showa Denko Carbon, Inc. Siemans Industry Inc. Silgan Containers Corporation

SMS Mill Services, LLC SMS Siemag LLC

Squire, Sanders & Dempsey LLP

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Steelscape, Inc.

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Telling Industries
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The Lincoln Electric Company

Vesuvius USA Corp.

Woodings Industrial corporation Xcoal Energy & Resources

Xtek, Inc.

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#### WASHINGTON DC

25 Massachusetts Avenue NW Suite 800 Washington DC 20001-1431 202.452.7100

#### DETROIT

2000 Town Center Suite 320 Southfield MI 48075-1199 248.945.4777

## PITTSBURGH

680 Andersen Drive Pittsburgh PA 15220-2700 412.922.2772

www.steel.org

