



TESTIMONY OF

**JAMES (JB) BROWN
PRESIDENT
BREMEN CASTINGS, INCORPORATED
MEMBER OF THE AMERICAN FOUNDRY SOCIETY**

BEFORE THE

U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON SMALL BUSINESS

SUBCOMMITTEE ON AGRICULTURE, ENERGY & TRADE

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Good Morning. Chairman Tipton, Ranking Member Murphy, and members of the Subcommittee, thank you for the opportunity to testify before you on this timely subject of *The President's Climate Action Plan: What Is the Impact on Small Businesses?*

My name is JB Brown and I am President of Bremen Castings, Inc. (BCI) in Bremen, Indiana - a small town of about 5,500 people roughly 15 minutes south of South Bend/Elkhart. As a small business that is energy intensive, I am very concerned that the regulations proposed by President Obama on the utility sector to force a quick reduction in carbon emissions would place my company and the entire U.S. foundry industry at a substantial disadvantage to our foreign competitors and will invariably raise our electricity costs. Metalcasting is one of our nation's oldest and most important industries. It is the most cost effective method to manufacture a shaped metal component. The process consists of pouring molten metal (virtually any type of metal) into a mold made of sand, metal or ceramic, to form geometrically complex parts.

Today, the metalcasting industry remains critical to the U.S. economy, as 90 percent of all manufactured goods incorporate engineered castings into their makeup. Castings are used in cars, trucks, planes, railroads, ships, all types of machinery, air conditioners, refrigerators, lawn mowers, oil and gas field equipment, medical devices, water infrastructure, kitchen appliances, wind turbines, tanks, bombs, mining and agricultural equipment – just to name a few areas. In short, castings represent a vital, yet very basic, aspect of our everyday lives.

Bremen Castings, Inc
500 North Baltimore Street - Bremen, IN 46506
www.bremencastings.com

I am proud to be a fourth generation Indiana metalcaster and president of this family-owned small business that has been in continuous operation for over 75 years. My great-grandfather founded our foundry in 1939, which was originally established to produce manhole covers, furnace grates, pumps, truck parts and natural gas parts for its customers. Growing up I spent many hours around the foundry and continuing my experience through high school and college. I have worked every job, every shift throughout our 155,000 square foot facility. Both my parents' fathers worked in this plant and today we still have other families that are currently in their 4th generation as well. More recently, my daughter, representing the fifth generation, has been learning the business interning in the foundry and machine shop every chance she gets when she is on break from school at Indiana University.

After weathering a number of recessions and overcoming changes in the marketplace, our foundry continues to be a leading metalcaster producing thousands of different types of gray & ductile iron castings ranging in weight from .5 pounds to 100 pounds. Our team of over two hundred and fifty associates today manufactures an array of castings for heavy duty trucks, agricultural equipment, valves & pipe fittings, pump components, compressors, lawn/garden equipment, as well as a variety of critical parts for Humvees and Oshkosh Defense for the U.S. Department of Defense. BCI has been a long time supplier to John Deere and Case New Holland in the agriculture sector, as well as Eaton in the heavy truck sector. We are now exporting castings for agricultural equipment to Brazil, France, Mexico and Canada.

Metalcasting Industry is Critical to the U.S. Economy

By way of background, the U.S. metalcasting industry is the world's second-largest producer of castings, after China. Metal castings are truly the foundation for all other manufacturing. Foundries produce both simple and complex components of infinite variety. Castings are seldom seen or identified by consumers, because they are normally component parts found inside assemblies.

The U.S. foundry industry is comprised of 2,000 operating casting facilities, with over 50 of these plants located in Indiana. Approximately 600 foundries produce iron and steel castings, while another 1,400 manufacture aluminum, brass and bronze castings. Metalcasting plants are found in every state in the nation, with the highest geographic concentration of facilities located in Alabama, Ohio, Pennsylvania, Indiana, Illinois, Michigan, California, Texas, and Wisconsin. Foundry locations have traditionally been sited close to raw materials, coal, water, and transportation. More recently, a few new foundries have been built in states with inexpensive electricity, as well as proximity to their customers.

The American metalcasting industry provides employment to over 200,000 men and women directly and supports thousands of other jobs indirectly. The industry supports a payroll of more than \$8 billion and sales of more than \$32 billion annually. Our industry is dominated by small businesses, with over 80 percent of U.S. metalcasters employing 100 workers or less. In fact, many are still family-owned, like BCI.

Castings have applications in virtually every capital and consumer goods. Metal castings are used in cars, trucks, railroads, ships, all types of machinery, air conditioners, refrigerators, lawn mowers, medical devices, weight lifting equipment, oil and gas field equipment, water works, mining, wind energy, and agricultural equipment. The major industries supplied by our industry include

agriculture, construction, mining, railroad, automotive, aerospace, communications, health care, defense, and national security. Cast metal products are integral to our economy and our way of life.

Metalcasting Involves Energy-Intensive Processes

Metalcasting is among the most energy-intensive industries in the United States. The heating and melting of metals consume large amounts of energy, accounting for about 55% of the total energy used. Mold making, core making, heat treatment and post-cast operations use significant energy as well.

Compared to other foundry sectors, energy costs are typically higher for iron foundries, such as BCI. Most iron casting work is done at temperatures up to 2850° F, with subsequent heat treating done at up to 1900°F. The melt temperature is much higher for gray and ductile iron compared to non-ferrous metals. In addition, our foundry utilizes two different types of furnaces – one called a cupola furnace that utilizes foundry coke to reach these high temperatures, and the other is an electric melt furnace. Approximately half of the total energy used in iron foundries with cupolas is consumed in these furnaces. Typically, our cupola furnaces cannot be turned off during the production cycle. The electric melt furnace is never shut down. It remains operating twenty-four hours a day – 365 days a year. Basically, 40 percent of our energy costs come from the cupola furnaces, while 60 percent comes from our electric melt furnaces.

We are already restricted by the utilities from when we can run our furnaces – essentially during non-peak hours from 6:00 p.m. to 6:00 a.m. – this basically limits us to just two work shifts – a night shift and morning shift. If we were to violate our agreement, we would be fined \$15,000 for the month. It's already a burden to find top management and other skilled workers, but trying to find that same talent to work the late night shift is almost impossible.

In addition, our energy-intensive operations have forced the foundry industry to find ways to become more energy efficient in order to remain competitive. The industry has made good progress in reducing its energy costs by developing and adopting more efficient equipment and by making changes in some of its processes.

Over the past two years, Bremen Castings has worked diligently to cut some of our energy costs and become more energy efficient. In fact, we made a significant investment of over a half-million dollars in a variety of energy-savings projects including: replacing old lighting with energy efficient fluorescent lighting (\$65K); switching out old air compressors with energy efficient electronic compressors (\$300K); installing new premium efficient electric motors and drives (\$75K); updating furnace to use less coke and get same melt rate (\$100K); adding extra insulation in the roof for heating in the winter (\$50K); adding foot pedals for on-demand air for machines instead of constant air supply (\$15k); and, installing an on-demand hot water for the plant (\$50K). Additionally, we are no longer purchasing incandescent lighting and have replaced lighting fixtures with LED lights. We are also recouping waste heat from air compressors to heat in winter.

Despite being an energy-intensive industry, foundries are major recyclers. Most castings are manufactured from recycled scrap materials rather than new or "virgin" materials as melt stock. Annually, U.S. foundries consume 15-20 million tons of recycled scrap metal, giving new life to products that would otherwise go to landfills. As a result, foundries take tens of thousands of old

cars from our nation's highways, as well as broken radiators, water meters and other discarded metal products for use in the manufacture of our castings.

The foundry industry believes that it is imperative for America to continue to expand access to our domestic energy supply in order to meet current needs for affordable energy and shore up our energy security. Oil, natural gas and clean coal remain essential contributors to America's energy security. In addition, we strongly support the building of the Keystone XL Pipeline and urge the U.S. Department of State to approve the Presidential Permit necessary for this project to move forward.

The foundry industry supports an energy strategy that embraces all forms of domestic energy production, including nuclear power, hydropower, alternative fuels and renewable energy sources like wind energy and solar power. We are pleased to see the technological advancements in fracturing which have led to an abundance of natural gas production in the U.S. that is fundamentally changing the energy landscape. The result in the growth of all these sectors has provided more work for the foundry industry, more jobs, and consistently lower domestic natural gas prices in what has known to be a historically volatile market.

Continued access to affordable energy sources will help U.S. foundries and our customers better compete against growing global competition and allow us to keep and create more jobs in the U.S.

Impact of President Obama's Plan to Regulate Power Plants on Indiana Foundries

As an energy-intensive manufacturer, I am very concerned about the consequences of the President's plan outlined on June 25th to regulate greenhouse gas (GHG) emissions from new, modified, and existing power plants on my foundry, our industry and manufacturers across the U.S. I believe these new rules will cause power plants to close, drive-up power costs for households and businesses across the country, and especially harm manufacturing-heavy states. Additionally, these new regulations abandon an all-of-the-above energy policy and will threaten the foundry industry's ability to remain competitive in this international manufacturing environment. We compete globally against countries, like China, where the industry is often state-owned, controlled and subsidized, including for electricity costs.

Furthermore, the proposed rules will adversely affect Indiana manufacturers and consumers, much more than most states. Indiana is a top energy-using state, and most electricity comes from coal-fired power plants. Currently, coal generates about 40 percent of electricity in the U.S. However, in Indiana, more than 80 percent of our electricity is generated from coal-fired power plants. The proposed utility rules will make Indiana manufacturers, including BCI, less competitive with other states that aren't coal dependent and countries that don't have strict rules in place, ultimately costing jobs.

Increasing regulations is also unfair to many of these coal dependent regions of the country and will encourage fuel-switching, since there are no proven technologies to control carbon dioxide (CO₂) emissions from power plants. The shift from coal to natural gas is already well underway due to the low price of natural gas and other EPA Clean Air Act regulations. However, certain areas of the country, including many of the states where there is a high concentration of foundries (i.e. the Midwest), have more abundant coal sources; whereas, other regions are better suited for production

from wind and solar sources. The Administration's plan makes coal-fired electricity supply less affordable and less reliable to major industrial customers, which will threaten the loss of valuable manufacturing jobs. For foundries, wind and solar don't have the reliability, affordability or the capacity that you have with fossil fuels. In northern Indiana, it would be challenging to power a foundry on alternative energy year-round, as we do not have a lot of sunny days in the winter.

Indiana utilities have long relied on coal because it's been a stable and abundant low-cost source of fuel. In fact, this supply of coal from the southwestern part of the state has enabled utilities to offer some of the nation's lowest electricity rates for years. These relatively low electric rates have helped to keep our foundry and other Indiana metalcasters more competitive against foundries in other states, as well as our foreign competitors.

For foundries in coal dependent states like Indiana, Wisconsin, Ohio and Pennsylvania, there is no doubt the cost to produce castings will increase. With the continued sluggish economy, many foundries across the country are reluctant to hire new workers given the continued uncertainty in regards to energy prices, health care costs, cuts to defense programs, potential changes to the U.S. tax code, and new federal regulations from the U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA).

Energy is the lifeblood of U.S. foundries and most manufacturers and even the slightest competitive advantage in the price of energy can make an enormous difference for companies like mine that compete globally. Like all manufacturers, we benefit from the decreased production costs attributable to lower energy prices.

For many metalcasters energy is a significant expense, only behind raw materials and labor in terms of the costs of doing business. When coal and natural gas are both a key input and a main cost driver, market volatility makes it extremely challenging to plan and to remain competitive. Furthermore, due to the competitive nature of our industry, cost increases can rarely be passed onto our customers. Since state laws allow the power companies to pass all energy and environmental compliance costs through to the consumer, we expect our energy prices to increase substantially due to these new EPA regulations. Even a \$0.01/kWh increase in the cost of electricity imposes additional costs of nearly \$9 billion per year on domestic manufacturing facilities.

Another key factor will be how much time the EPA will allow the utilities to comply with the new power plant rules. We will be closely watching to see how the EPA handles the transition period to minimize the cost and reliability impacts, especially on states like Indiana that are still dependent on coal-intensive electricity generation.

In addition, we remain concerned that the EPA continues to fail to consider the cumulative impact of its power sector regulations on grid reliability. In fact, no comprehensive study has been done to assess the effect on the price of electricity, jobs, reliability of electricity supply, and the overall economy. The Federal Energy Regulatory Commission (FERC) has questioned whether the compliance deadlines set forth in other EPA regulations are too expeditious to allow sufficient lead-time to replace retiring resources. So far, over 140 coal-fired electricity-generating units in 19 states have announced they will retire by 2015. These retirements will create volatility within the electric grid if steps are not taken to balance the retirements with new capacity.

Conclusion

As an energy-intensive industry comprised primarily of small businesses, metalcasters are troubled by the prospect of increased electricity costs and reliability issues that will likely result from the Administration's new power plant regulations being developed. Establishing new stringent and burdensome regulations on the power sector will have a negative effect on all U.S. manufacturers, regardless of company size, consumers, the long-term health of the U.S. economy and the prosperity of American workers. As we are transitioning our power generating fleet, utilities need flexibility to ensure that they can manage these emerging environmental regulations while continuing to control costs. We don't need more regulatory road blocks as the country and our industry struggles out of the recession.

Foundries need a secure and reliable supply of electricity at affordable rates in order to remain competitive. Without healthy production growth in manufacturing, we believe acceptable progress on the hiring front will be impossible.

Thank you for the opportunity to appear before you today. I look forward to your questions.