TESTIMONY
OF
JANIS HERSCHKOWITZ
PRESIDENT
PRL INC.
ON BEHALF OF THE AMERICAN FOUNDRY SOCIETY

BEFORE THE
HOUSE EDUCATION AND WORKFORCE COMMITTEE
SUBCOMMITTEE ON WORKFORCE PROTECTIONS

HEARING
REVIEWING RECENT CHANGES TO OSHA'S SILICA STANDARDS

April 19, 2016

Chairman Walberg, Ranking Member Wilson and members of the Subcommittee, thank you for the opportunity to testify before you today to discuss the Occupational Safety and Health Administration's (OSHA) final crystalline silica rule published on March 25 and its significant impact on the U.S. metalcasting industry.

Good morning. I'm Janis Herschkowitz, President and CEO of PRL Inc. I am a second generation Pennsylvania small business metalcaster employing 150 team members in Lebanon County. My mom, sister, and I are the sole owners of our business. My family moved to the United States from Bolivia in 1971 to live the American dream. In 1972, my father purchased a small company with 13 employees, which he eventually grew to three companies. I became President following his untimely death in 1989, and under my tutelage we opened a small foundry later that year Our foundry, which is one of the last stainless steel sand foundries built from scratch in this country, is one of the cleanest and most technologically advanced in the U.S.

Today, we operate four manufacturing locations which are comprised of a foundry, two machine shops, and an upgrading facility and we proudly employ 150 highly skilled craftsmen. They are highly dedicated, and play a vital role in PRLs' success.

I am testifying today on behalf of the American Foundry Society (AFS), our industry's major trade and technical association, which is comprised of nearly 8,000 members representing over 2,000 metalcasting firms, their suppliers and customers throughout the U.S. The American metalcasting industry provides employment for over 200,000 men and women directly and supports thousands of other jobs indirectly. 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 mine.

More than 90 percent of all manufactured goods and capital equipment use metal castings as engineered components or rely on castings for their manufacture. In fact, we depend on castings in

all facets of our lives, including all modes of transportation, cooling and heating our homes, and most importantly providing us with power and playing a critical role in our nation's defense.

Our foundry, which employs only 13 coworkers, pours stainless steel and other alloys to produce metal castings ranging in weight from 10 to 12,000 pounds. Our castings are utilized in numerous applications, including valves, pumps, impellers, diffusers and turbines for the military, nuclear, power generation, petro-chemical, and commercial sectors.

PRL is a critical supplier to our national defense, including the nation's nuclear submarine program. We are an important supplier to Electric Boat, Northrop-Grumman, and Curtiss-Wright. Due to size limitations, I was unable to bring any of the castings we produce. However, there are several pictures of the castings we produce which are attached to my written testimony [Attachment A].

Examples of PRL's safety initiatives include:

- A safety committee which is certified by the State of Pennsylvania with representatives from every level of our organization;
- A safety manager as well as safety leaders at each location;
- Mandatory safety and health training for all employees provided by an outside safety trainer;
- Open communication regarding safety so any co-worker can report a safety violation to their co-worker for review;
- A mentoring program where more experienced workers are tasked with teaching our younger co-workers about safety:
- The utilization of an outside safety experts who specialize in the metalcasting industry and is available 24/7 respond to any questions;
- A voluntary respirator program for our co-workers, which was instituted based upon a recommendation from the Indiana University of Pennsylvania, who PRL brought in based upon OSHA's referral; and,
- A robust preventive maintenance program to ensure equipment is safe.

PRL offers a strong benefits package and we continually invest in our co-workers, as we believe they are our biggest asset.

U.S. Foundry Industry is Critical to the U.S. Economy

The U.S. metalcasting industry is the sixth largest industry in America and the second largest supplier of castings in the world, after China. The industry produces both simple and complex components of infinite variety. From key components for aircraft carriers and automobiles to home appliances and surgical equipment, cast metal products are integral to our economy and our way of life. U.S. metalcasters ship cast products valued at more than $28 billion in sales in 2015. The industry is widely dispersed throughout the country, with the highest geographic concentration of facilities located in Ohio, Alabama, Pennsylvania, Indiana, Illinois, Michigan, California, Texas, and Wisconsin. Metal castings have applications in virtually every capital and consumer good and are truly the foundation for all other manufacturing.

Today, there are 1,961 operating casting facilities, which is down from 2,170 five years ago and, 3,200 plants in 1991. This reduction can be attributed to the recession, technological advances, foreign competition and tightening of federal, state and local regulations. More than 500 foundries produce iron and steel castings, while over 1,300 make aluminum, brass and bronze castings.

The foundry industry remains vital to the automotive and transportation sectors. In fact, automobiles, trucks, rail cars, and other transportation equipment utilize 35 percent of all castings produced in the U.S. These type of castings include engine blocks, crankshafts, camshafts, cylinder heads, brake drums or calipers, intake manifolds, transmission housings, differential casings, U-joints, suspension parts, flywheels, engine mount brackets, front-wheel steering knuckles, hydraulic valves, and a multitude of other castings.

Foundries are also the mainstay of national defense. All sectors of the U.S. military are reliant on metal castings for submarines, jet fighters, ships, tanks, trucks, weapon systems and other vital components. Metalcasters are experts in making new, engineered components by re-melting old ones. Discarded appliances, sewer grates, water meters, automobiles, and other metal objects once destined for the landfill are valuable materials to our industry. In fact, our industry uses scrap metal for 85% of its feedstock for iron and steel castings. This practice results in the diversion of 10 million tons of material from disposal in domestic landfills every year.

Occupational Safety & Health Administration's Final Crystalline Silica Rule

Crystalline silica sand, the kind of sand found on lake shores, is essential to the metalcasting process. Nearly 70% of all U.S. foundries utilize the sand casting method to produce hundreds of thousands of different types of metal castings every year. Annually, the foundry industry uses and recycles millions of tons of sand.

OSHA's recently finalized silica rule will have far-reaching implications for foundries. The rule sharply reduces, by half, the existing permissible exposure limit (PEL) for crystalline silica to 100 micrograms per cubic meter (µg/m3) of air averaged over an eight-hour shift, to 50 µg/m3 for general industry. In addition, employers in general industry must measure silica levels if workers may be exposed at or above an "action level" of 25 µg/m3. Among other provisions, the rule imposes requirements for exposure assessment, methods for controlling exposure, respiratory protection where engineering controls do not sufficiently reduce exposure, medical surveillance, hazard communication and training, and massive of amounts of recordkeeping.

Key Foundry Concerns with OSHA's Silica Rulemaking:

1. **OSHA's Final Rule is Technologically and Economically Infeasible**

   The sharply reduced PEL presents enormous feasibility challenges. Foundries will have to exhaust **all** feasible engineering and work practice controls to meet the new reduced PEL. There is not a one-size-fits all solution that is guaranteed to work. Some foundries may spend millions of dollars retrofitting and/or rebuilding in order to implement the various types of engineering controls (essentially trial and error) while attempting to comply with the new standard.

   OSHA completely dismisses the use of personal protective equipment (PPE), as a primary approach to protecting employees; instead, relies on the outdated "hierarchy of controls" that emphasizes much more costly engineering and work practice controls. There are certain operations in a foundry, such as grinding and knock-off/sorting, where no matter how much is spent on controls, consistent compliance will not be achieved.

   The OSHA PEL is a not-to-exceed limit, not an average limit. Given the day-to-day variation in exposure levels that are typical of foundry operations, that means we have to achieve average levels below 10 µg/m3 to avoid citations for exceeding the PEL. To achieve that dust level we would need to meet standards typical of clean room operations. Foundry processes are simply not capable of achieving those levels of dust control.

OSHA's final rule requires general industry to establish regulated areas where access is controlled and those who enter, even to pass through briefly, must wear respirators. Establishing and controlling these areas will be essentially impossible. Moving key supplies and the castings with a fork lift, for example, will be very challenging. There may be the need to move entire departments. Employees typically working in the office but who have to come out to the shop floor periodically to check on a customer order or order supplies may now need to be put into a respirator program if there is a restricted area. Trying to operate a foundry with regulated areas will truly upend the day-to-day operations of U.S. foundries.

2. **Underestimated and/or Completely Omitted the Cost of Equipment & Processes**
A number of pieces of equipment and system costs, such as a new dust collector, which can easily run over $1 million to install, were not accounted for by OSHA in their economic analysis. Other examples of equipment where the costs were omitted or underestimated include:
   - Cleaning— professional wall-to-wall cleaning would cost $1 per square foot of facility, plus $400 million a year for downtime.
   - Ventilation— Ventilation costs are four times higher than OSHA estimated in its proposal and the agency completely omitted engineering, air modeling and permitting costs. OSHA claims to have doubled their earlier estimate in the final economic analysis, but in fact, they actually reduced costs from $5.33 to $5.26 per cubic feet per minute.
   - OSHA failed to consider the effects of compliance on current EPA regulations. Many foundries will be forced to redesign and install new ventilation systems. This will trigger a large number of foundries to make changes to their air permits, which can take at least a year to obtain from their states.
   - OSHA assumes that 30 year old ventilation designs that were meant for the old PEL are capable of meeting the new PEL at little or no additional cost. OSHA seems to believe that these systems can just be "tweaked" by operators to achieve compliance. Unfortunately, that is simply not the case. At these new lower levels, it will be much more challenging and far more costly than OSHA has estimated.

   In addition, OSHA estimated costs for only 30 of the 50 control categories in OSHA's technological feasibility analysis and listed in Table V-A-1 of the Final Economic Analysis. Twenty categories are simply left blank and not provided with a cost even though the industry testimony and comments submitted for the record provided this information. In addition, a case study used by OSHA to demonstrate feasibility of the new proposed PEL is based on a single sample of less than 50ug/m3. To obtain this sample, the foundry implemented a wide variety of controls over several years. None of the costs for these control techniques were included in OSHA's economic analysis. These are just a few of a long list of examples where OSHA underestimated and/or completely omitted the cost of equipment and processes, despite concrete data provided by our industry.

3. **OSHA Drastically Understates Costs to Comply with the Rule – Exceeds 9% of Foundry Industry's Revenue**
OSHA's cost estimates for the foundry industry are many times below realistic costs. In the final rule, OSHA's estimated cost of the engineering/ancillary provisions for the foundry industry at $47 million and $32,000 per foundry.

   An independent economic analysis performed by engineering and economic experts examined and corrected OSHA's spreadsheets and estimated the cost for foundries to come into

compliance to be more than $2.2 billion annually and over $1 million per foundry. This represents 9.9% of the foundry industry's revenue and 276% of its profits. In reality, the actual costs of the rule are *50 times* higher than OSHA estimates. The economic impact of this rule will disproportionately affect small foundries, since the majority of the industry employs less than 100 employees.

4. **OSHA Utilized Outdated Industry Data and Failed to update its Cost/Benefit Analysis for the Foundry Industry**
   OSHA declined to conduct a second small business panel review under the Small Business Regulatory Enforcement Fairness Act (SBREFA), choosing to let stand the outdated 2003 report. This report and OSHA's own rule relies on data gathered from a set of foundries from the early 1990's, and many in fact have closed. Reliance on a report that solicited input on a different proposal a decade ago is simply not adequate outreach or due diligence to the affected stakeholders.

   Furthermore, it raises serious concerns that OSHA has not used the best available data or techniques to quantify the costs and/or benefits of the rulemaking.

Impact of OSHA's Silica Rule on PRL

PRL estimates OSHA's final silica rule will cost our foundry well over $1 million dollars, which includes the purchase and installation of a new dust collection system, other additional cleaning and filtration equipment, shop modifications, as well as other associated changes in the way we clean and process castings, and how we vacuum the sand within the facility.

Furthermore, this amount does not even include the engineering time, outside lab tests, other plant modifications, new air permits if necessary, including zoning modifications (for the dust collection pad), and most importantly lost production time. Air permit approvals, which are not even guaranteed, can often take over a year from the Department of Environmental Protection in the State of Pennsylvania.

Our company operates off of a credit line, and we will have to attain a capital equipment loan. Realize even if we were able to borrow at least $1 million to try and comply with the regulation, there is no guarantee of being able to meet the lower permissible exposure levels, much less even measure it.

The worst case scenario with OSHA's rule is that if we are unable to meet the requirements, we could be forced to close our doors. This would shut down our other facilities as well, as they are dependent on upgrading and machining the castings supplied by our foundry. Simply put, over 150 highly skilled co-workers would lose their jobs, which would also have a devastating effect on our local economy, and our nation's military who would lose a critical supplier. PRL is just one foundry of many.

OSHA has two immediate, effective means to improve upon current protective practices, which it dismisses in its regulation: (1) provide compliance assistance to companies over the current exposure limits, for which OSHA documents a roughly 30% non-compliance rate across all impacted industries at the current PEL; and, (2) support new technology and policies favoring effective, comfortable respirators and clean filtered air helmets, which provide full protection but are not

favored by OSHA's "hierarchy of control" policy. Unfortunately, the agency would not consider changing that policy, no matter how effective, efficient and economical the protective devices.[1]

However, OSHA's approach to this final rule is misguided and relies upon outdated approaches to addressing safety and health hazards that are inflexible and potentially cost prohibitive, and there is no guarantee they can even be met.

Conclusion

The ramifications of this rule on our nation's foundries and our nation's industrial base are truly staggering. The substantial costs for this rule alone make the foundry industry one of the most heavily impacted industry sectors among all those affected by the rule.

By not providing flexibility in meeting the significant requirements of OSHA's new silica rule, my concern is that it's implementation will cause a significant number of foundries to close, which will shift production offshore, to countries who don't even come close to meeting OSHA's current silica standard. I firmly believe that the silica rule, as written, not only poses a threat to our national security, but it will also cause many well paid jobs with good benefits from numerous manufacturing sectors to be lost.

Thank you again for the opportunity to appear before you today. I would be happy to respond to any questions.

[1] 78 FR 56274, 78: "OSHA would like to draw attention to one possible modification to the proposed rule, involving methods of compliance, that the Agency would not consider to be a legitimate regulatory alternative: To permit the use of respiratory protection as an alternative to engineering and work practice controls as a primary means to achieve the PEL."

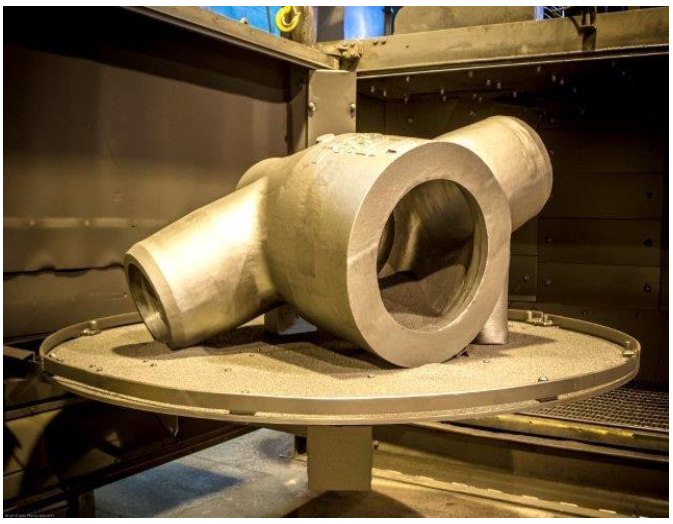
ATTACHMENT A – Examples of Castings Manufactured at PRL Inc.

INNER CASING COVER FOR SUBMARINE
- STAINLESS STEEL –

VERTICAL DIFFUSER FOR THE COOLANT SYSTEM
- CN3MN -

STEAM CHAMBER FOR SUBMARINE
- STAINLESS STEEL –

PUMP CASING FOR SUBMARINE
- COPPER NICKEL -



VALVE BODY FOR CARRIER
- CARBON STEEL -