STATEMENT OF
BERT ROBINS
CO-FOUNDER & VICE PRESIDENT, SEACAST, INC.
BEFORE THE
SENATE FINANCE COMMITTEE

APEC 2011: Breaking Down Barriers, Creating Economic Growth

March 31, 2011, 10:00 am

Thank you Chairman Baucus, Ranking Member Hatch, and members of the Committee for inviting me to testify here today. I am thrilled to share my experience in the Asian Pacific region as an entrepreneur and small business owner.

My home town Butte MT was born a mining town and still is today. When I was in high school and college, I wrote letters to Senator Mike Mansfield describing current affairs, lack of job opportunities in the state, and how they affected my family and me. As Montana's Senior Senator, Mansfield was keenly aware of this problem. He started working the Butte mines at age 19 and worked 8 years underground. His path led him from the Butte copper mines to academia. As Majority Leader of the Senate, he heard about the lack of job opportunities frequently from constituents back home. Mansfield replied to my letter and told me Montana's top export was not mined copper, sawn lumber or harvested crops, but rather it was its talented and educated young people. The response still resonates with me today.

Since 1985, SeaCast has grown from three employees in Seattle to over 300 employees spread throughout four facilities in Washington, Rhode Island and Montana. We have grown from a small domestic supplier, to a top tier, full service casting company competing in the global marketplace. Because of exports and other opportunities, SeaCast continues to grow and provide high quality jobs in Montana, Washington, Rhode Island and elsewhere.

The History of SeaCast

Our father, Red Robins got his start in the Butte mines as a welder. He mastered his trade and established Butte Hard Surfacing, a small welding and fabrication company. The mines went from my father's employer to his primary customer. Our father and mother, Mary, eventually had 12 children, 4 girls and 8 boys. One could say that Dad had his steady flow of workers for the "shop". It was there that we learned the value of hard work, a good education, the importance of a cohesive family and basic welding and metalworking skills. Growing up, we'd work after school and on Saturdays. Pay was optional -- Mom and Dad would say "It's for the family". And it was.

Dad passed away when he was just 52 and I took over the shop at 16 years old. My four younger brothers funded their education working for the family business. One of the girls is a Human Resources Manager for one of our plants. Another is a homemaker and businesswoman with her husband. Another operates a publishing company with her husband. Of the boys, four went into the medical field with two orthopedic surgeons, a psychoanalyst and one in nuclear medicine. One cousin is a special education high school teacher. The other four brothers and one of the cousins went into manufacturing and are all now part of our company, SeaCast. We now see the next generation of sons, nephews and nieces experiencing the same excitement in engineering and manufacturing that we did at SeaCast.

After receiving a Political Science degree from the University of Washington, my pregnant wife and I moved to Ohio and I began working on a Master of Science degree in welding engineering at Ohio State University. My wife worked as long as the pregnancy allowed and I worked graveyard shift in a large sand casting foundry. That is where I fell in love with pouring metal and the casting process. Through one of my department professors, I was introduced to the investment casting process. Investment casting involves injecting molten wax into a die to make a wax replica of the intended metal casting. The wax replica is coated with several successive layers of ceramic. It is then placed into an autoclave and the steam introduced penetrates the ceramic shell melting the wax which drains out. This process is also called the “lost wax” process. This hollow ceramic shell is fired at around 2000 degrees Fahrenheit. Next, molten metal, at temperatures between, 1300 degrees and 3100 degrees Fahrenheit, are poured into the shell. After the metal has solidified and cooled, the ceramic is broken away, exposing the metal casting with the precise shape of the original wax pattern. This manufacturing process was very intriguing and ultimately it would become my profession.

After graduating from Ohio State, I eventually came to work at General Electric’s Aircraft Engine Special Component Manufacturing Center in Seattle. I was fortunate to live alongside two uncles and an older brother who were Boeing engineers in one of the world’s great aerospace hubs. During this time, my brother Mike and I decided to start an investment casting foundry and enlisted the help of Dr. Ed Funk, the professor who introduced me to the investment casting process. He mentored my brother Mike in each step of the process. In 1985, we started SeaCast, Inc. with three full time employees and me. Starting on a shoestring budget, we moved World War II vintage equipment from Ohio to Washington in a rental truck. Within one month, we had setup all of the equipment, had manufactured, and shipped our first castings. This was quite an achievement considering the complexities involved in our manufacturing process.

The Growth of Seacast

Our first purchase order was from GE for copper heat sinks used in refurbishing CFM56 airfoils. We had not planned on it at the time, but our Washington location provided easy access into the Pacific Rim’s rapidly growing industries such as computer hardware, lumber, material handling

and trucking. Through great sales efforts, technical excellence, hard work and supportive wives and families, the business prospered.

About 7 years later, we purchased our only competitor in Washington state and moved our headquarters from Seattle to Marysville. In that plant, we expanded into the turbopump, mining and construction, biomedical and the aerospace industries. In 2002, we were honored to be chosen by the International Olympic Committee to cast 16,500 aluminum torches used in the Olympic Global Torch Relay.

In 1995, we purchased Nutrifaster, a commercial juicing equipment manufacturer and five years later, we purchased Intercontinental Truck Body, a manufacturer of enclosed truck bodies and military tow vehicles.

In 2005, backed by a strong economy and facing manufacturing capacity challenges, we purchased another investment casting foundry in Providence, RI.

Shortly thereafter, with the support of state and local officials and business leaders in Butte MT, we committed to build a new state-of-the-art, energy efficient facility. In this environmentally responsible facility, we pour stainless steels, aluminum, copper, nickel, cobalt and titanium alloys. Titanium has been declared a strategic metal by the US Department of Defense and is used prominently in military programs. This Butte facility has been in production since July 2010 and is among the most environmentally friendly investment casting foundries.

The Montana foundry was a great chance to throttle back the export of young and talented Montanans that senator Mike Mansfield described 40 years earlier. In addition, encouraged personally by Senator Max Baucus and his Economic Summit held in Butte last summer, GE Aviation has agreed to place aircraft engine configuration hardware fabrication into the Butte facility. This will give the Butte facility overall manufacturing capabilities found in no other investment casting foundry in the world.

Today, SeaCast employs over 300 employees in four facilities. Top tier aerospace, defense, oil & gas, power generation, transportation, mining and medical equipment customers are drawn to our ‘can-do’ capabilities and entrepreneurial spirit. SeaCast’s active customer list includes Fortune 100 global manufacturers to Military Research Laboratories to innovative R&D small businesses. Our metal components are frequently launched into orbit and beyond or imbedded miles beneath the Earth’s surface. With such a broad customer base comes a wide variety of alloy, geometric, dimensional, chemical and mechanical requirements. Some of these require tolerances defined to .0001 of an inch, and others are designed to last only several days, and tolerances are considerably more liberal.

To facilitate this wide range of requirements, each foundry is specialized to optimize resources. SeaCast pours as wide a range of alloys as any domestic foundry. In air melt, we routinely pour up to 40” 1200 lb steel castings. This is large by industry standards and only a handful of

domestic foundries can investment cast a part of this size. In vacuum melt, we pour up to 350 lb in nickel based super alloys and 150 lb in titanium alloys.

SeaCast also offers a wide array of in-house support services which complement our investment casting capabilities. These include CNC lathes and mills, vacuum or endothermic heat treatment and assembly. Nondestructive testing services include x-ray, magnetic particle inspection, liquid penetrant inspection and dimensional inspection. Destructive testing ensures that the mechanical properties of our castings conform to customer requirements. Full metallographic laboratory services are also offered in-house.

SeaCast is proud to have achieved and maintained demanding certifications required by our customers. These include AS9100 (aerospace) and ISO9001:2000 (commercial). We also maintain the NADCAP certifications (aerospace special processes) for Heat Treatment, Welding and Nondestructive testing. In addition to these certifications, SeaCast also holds many customer-specific certifications.

Growth through the APEC Region

For a small or medium sized entity in a competitive industry such as ours, growth is a constant concern. SeaCast's success is determined by growth in technical ability, growth in production efficiencies and growth in aggregate sales. One of the places we've historically looked for these opportunities is the APEC community. Often this takes the form of a direct supplier-customer relationship. However, the most significant relationship we have with the APEC community is the role of "silent exporter". Over one third of SeaCast's total annual sales are components sold to OEMs who then export the finished goods into foreign countries.

SeaCast currently exports a large number of highly engineered products to APEC economies, including critical infrastructure components being shipped into mainland China. One example of a strong APEC relationship for SeaCast involves a current Japanese Navy production program in which Mitsubishi serves as the prime contractor. Decades ago, SeaCast developed the intellectual property to manufacture a large, highly specialized steel investment casting for the US Navy. When this technology was transferred to the Japanese Navy several years ago, SeaCast was commissioned to manufacture the castings for ultimate assembly in Japan. In 2011, this program will be SeaCast's largest contract by revenue and will account for over 5 percent of SeaCast's annual sales.

In addition to having direct supplier and customer relationships to APEC economies, SeaCast serves as a silent exporter in significant scale. We manufacture precision components that are utilized in commercial aircraft, in nuclear power plants, on industrial machinery, in mining equipment and in military applications. Most of these programs are structured through global US-based tier 1 manufacturers. As such, supply chain or trade issues experienced by the world's largest manufacturers quickly cascade to us.

The above examples illustrate positive results of effort and cooperation between SeaCast's domestic partners and our APEC counterparts. Countless opportunities for improvement do remain. These include the protection of intellectual property, employee preparation and investment in technology.

One area where immediate improvements can be made is the harmonization of business practices in general and more specifically the protection of intellectual property. APEC economies could become a much broader and higher value-added participant if IP rights were recognized and adhered to according to worldwide standards. We're aware of cases where an Asian source could be an excellent supplier to a specific program, and our customers request no offshoring only because they fear IP leaks. We have personally seen examples this problem. Parts that we have manufactured under license are being reverse engineered, improperly manufactured and illegally marketed overseas. The enforcement of intellectual property laws is essential to protect both SeaCast and our customers.

SeaCast Looking Forward

Perhaps the single most important issue facing our business today is attracting, hiring and retaining quality employees. Employee preparation is a key area where our supply chain could benefit from improved direction and programs. We use the term employee preparation to include many types of workforce development, from education to apprenticeships to training. We are a niche manufacturing operation where many of the roles are investment casting or foundry specific. This creates a rather small pool of candidates that, when hired, can hit the ground running. With limited geographic access to this select number of workers, a company needs to build the capability to train new workers. One way that we're proactively addressing the need for qualified workers is by collaborating with local academic programs. Our Seattle and Marysville facilities have utilized interns from the University of Washington and annually support Industrial Design students from Western Washington University. These students experience all phases of our process from design through finishing. In our Butte facility, we've engaged our customer, GE Aviation, and Montana Tech of the University of Montana to train aerospace welders. While the program is still in its early stages, we have already met many development milestones and believe this to be a great model for long-term success. We have also hired several of the graduating engineers from Montana Tech and Eastern Washington University.

With the Butte facility's casting and fabrication capabilities, it is a likely candidate to produce components and assemblies for the F136 competitive engine program. This would further broaden our manufacturing, create additional sustainable jobs and increase our exports to APEC economies.

Another key requirement for our growth is investment in technology. We need for all of our employees to be as productive as possible and we need enhanced technologies which allow us to

compete with lower labor rate communities. Often, technologies which reduce human labor requirements actually expand the opportunity for job creation. We also find that many of the advanced technologies that we evaluate and employ tend to be more material efficient, energy saving and environmentally friendly. Through rapid prototyping and engineering support, we are tightly integrated with customers who are shaping the manufacturing world.

The journey for SeaCast has been an enjoyable, educational, thrilling adventure and there are innumerable opportunities ahead. We believe that improvements in the areas of IP protection, workforce training, technology and investment will greatly accelerate the growth of our business. We also believe that virtually anything is possible with the help of our customers, suppliers, legislators, friends and family.

I greatly appreciate the opportunity to tell our story. And I sincerely thank you for your efforts to continually improve our business environment and our lives. Thank you.