August 28th, 2003 INEEL SPIN-OFF COMPANY RAMPS UP IN IDAHO FALLS

Recognized by R&D Magazine as one of the most significant technological achievements in 2001, the invention Super-Hard Steel Coatings is being commercialized by The NanoSteel Company (TNC). The NanoSteel Company, headquartered in Maitland Fla., has established a Nanomaterials Research Institute in Idaho Falls, Idaho. TNC's Chief Executive Officer Joe Buffa expressed excitement about the progress the company has made in its first year, and foresees a promising future.

"During our first year, we have successfully ramped up both our powder and wire products to industrial-scale production (over 100,000-pound capacity per month); established our own research institute, with the cooperation of the INEEL; greatly solidified our intellectual property position; hired a world-class sales team; and made significant inroads in achieving our sales goals," Buffa said.

Super Hard Steel was originally developed at the U.S. Department of Energy's Idaho National Engineering and Environmental Laboratory (INEEL) by Daniel Branagan, a materials scientist who is now the chief technical officer for NanoSteel.

Bill Shipp, INEEL president and Laboratory director, said of the synergy between the private sector and government research programs, "The formation and commercial progress of the NanoSteel Company is a great example of what can happen when national laboratory inventions are put in the hands of an experienced, well-financed team of entrepreneurs. This is exactly what policymakers in Washington want to see happening with their investment in cutting-edge research. The INEEL is proud to be the breeding ground for this remarkable technology."

Super Hard Steel forms a tough, low-cost, wear-and-corrosion-resistant coating that outperforms traditional high-performance materials in applications where combinations of wear, corrosion and impact destroy or damage industrial parts. Since the bulk of the damage in an industrial part comes from the working surfaces as a result of corrosion, abrasion, erosion or fatigue, the application of this coating can vastly extend in-service lifetimes, reduce maintenance costs and allow parts to perform in new and demanding environments and in ways previously not possible.

"There have been very few truly innovative developments in thermal spray or weld overlay protection in the past 20 years," said Michael Breitsameter, TNC vice president of marketing and business development. “This technology, and the highly skilled and motivated team we have put together at TNC, can provide solutions to problems that exist today, and some that are as yet unimagined."

The NanoSteel Company's early focus has been centered on applications involving thermal spray techniques to apply coatings such as HVOF (High Velocity Oxygen Fuel), plasma and wire-arc spraying. TNC has since been actively pursuing the development of variations of Super Hard Steel for the hard-facing (weld overlay) and spray and fuse applications, which result in a protective layer that maintains full metallurgical bonding to the substrate. The Company also is developing second-generation wear and corrosion materials that offer even further improved performance.

CEO Buffa added, "We do not consider ourselves just a thermal spray company, but also a 'solutions company.' We have built a unique, world-class team with specialized knowledge that can be quickly brought to bear to provide unique and innovative solutions to solve the needs of industry."

Recently, TNC launched a second product line called "NeutraShieldTM Coatings" - which combines the revolutionary bond strength, toughness, corrosion and wear resistance of the Super Hard Steel coatings with the ability to absorb thermal neutrons - with an extremely high thermal neutron cross section.

Prodip Chaudury, TNC chief operating officer, said, "We have received enormous interest in our new NeutraShieldTM material since announcing this product line during a nuclear materials conference in July. It is a completely unique product capable of addressing many long-term storage issues currently challenging the nuclear industry."

Such material would create containers that better withstand the radiation environments of storage facilities. The NanoSteel Company employs four full-time and one part-time employees in the Idaho Falls-based Institute of Nanomaterials Research and Development, located in the building previously occupied by the Eastern Idaho Visitors Center at 505 Lindsay Boulevard. As visitors approach the building, they see the Institute's slogan, "A Natural Treasure, A National Resource."

Branagan, Chief Technical Officer, said, "We take our focus very seriously - which is taking new materials, developed in-house or anywhere in the world, across the great technological divide from basic discovery to near-term, large-scale industrial production and commercial utilization much faster than it is currently done. No company in the world either specializes in this area or does this particularly well.

"If we are successful with our vision, then we will reduce the normal time for the development of new products from several years down to months. This unique capability could truly be considered a national resource, and the development of advanced nanomaterial technologies could make a huge impact on technology and how it affects our everyday lives."