



FOR IMMEDIATE RELEASE
Monday, August 12, 2009

CONTACT: Erich Mische
(877) 632-4242
Erich.Mische@modumetal.com

Modumetal receives Department of Energy award to develop Thermal Barrier Coatings

Modumetal's advanced functional-gradation and nanolamination processes to be used to improve thermal barrier protection and turbine efficiency in power facilities.

(Seattle, Washington) Seattle-based Modumetal, Inc announced today that it has been notified of the U.S. Department of Energy's intent to award a Small Business Innovation Research (SBIR) contract to develop a functionally-graded coating that will enable power turbines to run hotter and more efficiently.

The SBIR contract, entitled, "Functionally Graded Laminated Metal-Ceramic TBC Systems by Low-Cost Electrochemical Processing", proposes to leverage the unique properties of Modumetal to dramatically increase the heat tolerance of materials that can be used in power turbines. By increasing temperature, engine efficiency can be improved, which in turn benefits the environment by reducing the emissions associated with power production and engine operation.

According to Dr. John Whitaker, Chief Scientist and Principle Investigator in this effort, the goal of the Phase I SBIR is to demonstrate a new material that will enhance the performance and provide an enabling technology that will allow engines to operate at much higher temperature and efficiency levels.

"By utilizing our unique "Modumetal by Design" process, we plan to demonstrate that nanolaminated and functionally-graded structures can improve the performance of thermal barrier coatings well beyond that which is achievable with current technology. We will demonstrate that the temperature limits of these existing systems no longer hold for Modumetal."

The proposed project has significant commercial application, as well as environmental benefits. It will enable a new class of coatings that combine the toughness of metals with the high temperature resistance of ceramics.

"We're extremely excited about this contract because it enables us to further develop a technology that has direct commercial applications in a number of areas, including power facilities, aerospace and automotive engines," said Modumetal Vice President Todd Wallen. "As a result of this coating, equipment will be able to be operated in higher temperatures, which will result in greater lifespan of the product, and ultimately, lower overall costs. Furthermore, these coatings are to be produced using a low-cost, scalable manufacturing process. There is not a question of *whether* these materials will realize expansive use in the marketplace, just *when*."

About Modumetal

Modumetal (www.modumetal.com) was founded to realize the commercial potential of a unique class of nanolaminated materials. Modumetal is creating materials that will change design and manufacturing of metals by redefining structural, corrosion and high temperature performance. Modumetal represents a whole new way of producing parts and is leveraging nanotechnology to achieve this unprecedented performance. Modumetal is made by a "green" electrochemical manufacturing approach, which reduces the carbon footprint of conventional metals manufacturing at the same time that it revolutionizes materials performance.

###