Harper Wins Contract for Unique Rotary Thermal Treatment System for Decommissioning of Military Munitions

Buffalo, NY – Harper International, world leader in thermal processing solutions for advanced materials, has been selected by U.S. Demil, LLC (USD) for the design of a new continuous indirect Rotary Thermal Treatment Unit (TTU) for demilitarization processing of munitions. The equipment will support US Department of Defense efforts directed at reducing and recycling large stockpiles of excess, obsolete and unserviceable munitions for safety and environmental purposes.

USD conducted several extensive process development sessions at Harper’s Technology Research Center to test and prove their proprietary non-incinerative thermal demilitarization process, known as “Decineration”™, on various small production lots of unique munition materials. Fine tuning of their precise thermal regime was focused on a design to deliver the most efficient and safe system possible. The resulting TTU achieves the client’s needs of successfully demilitarizing and recovering, without destruction, all non-energetic materials in an environmentally responsible manner, at levels not previously achieved in other existing demilitarization processes. As such, USD’s closed end “Decineration” methodology is considered a unique material recovery process that has received a US Patent and a federal EPA exemption from RECRA-C permitting requirements.

The system design carefully considers the unique demilitarization application requirements, including design of a rotary tube to meet N.E.W. (net explosive weight) safety requirements, reinforced entrance and exit hoods, precise thermal control, and robust environmental abatement systems. Other features include the ability to process a large and varied universe of munitions and the ability to relocate the fully self contained system easily from site to site, thereby eliminating the need to transport munitions.

“Harper’s drive to engineer a furnace to meet our exacting processing requirements over our many years of research and development is a testament to their dedication,” said Mark B. Mitskovski, President, USD. “Harper played a critical role in helping us demonstrate the viability of this efficient and unprecedented environmentally responsible closed end processing technology and enabling USD’s success for this project.”

The US Army’s Conventional Ammunition Demilitarization Program is safely and responsibly destroying excess, obsolete and unserviceable munitions currently in inventory. The Harper system supports this endeavor by offering highly effective equipment that provides extraordinary throughput, energy and material recovery efficiency, safety, and environmental stewardship, unlike anything in existence today.

About Harper International

Harper International is a global leader in complete thermal processing solutions, as well as technical services essential for the production of advanced materials. From concept to commercialization, from research scale to full production line operations, Harper is perpetually on the cutting edge. For decades, we have pioneered some of the world’s most innovative, customized systems, with a focus on processing materials at high temperature and in non-ambient atmospheres. For additional information about Harper, please visit harperintl.com or email us at info@harperintl.com.

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