



MSE Technology Applications, Inc.
Mike Mansfield Advanced Technology Center

Technologies for the Future Responsible Solutions for Today

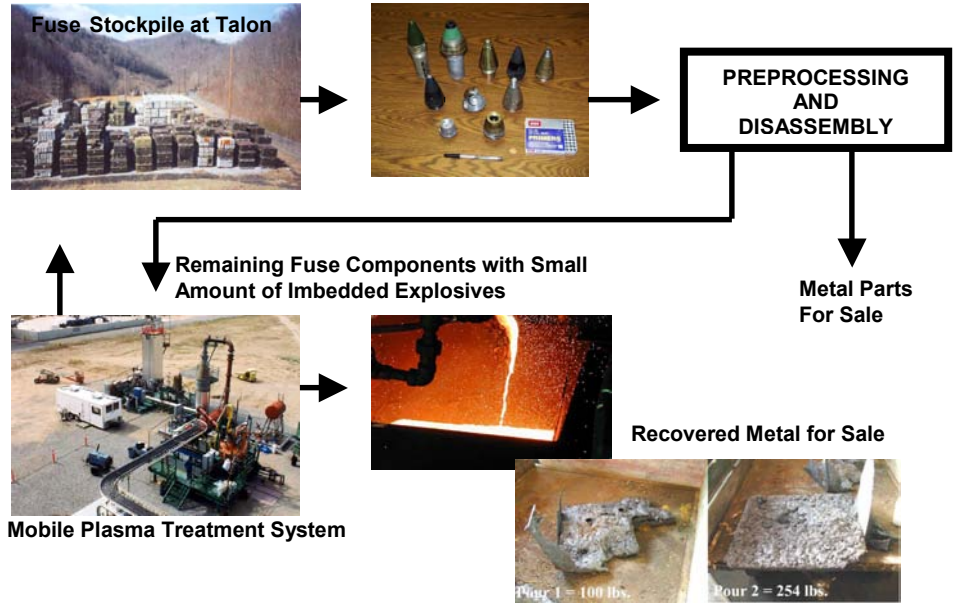
January 2003

Plasma Demilitarization System to be Deployed at Talon Manufacturing Facility in West Virginia

MSE Technology Applications is engaged in the deployment of a demilitarization technology demonstration at the Talon Manufacturing Facility in Alpoca, West Virginia. The project is being performed under MSE's U.S. Department of Energy Contract, which is managed by the National Energy Technology Laboratory (NETL). The project is sponsored by the U.S. Army Defense Ammunition Center and technically supervised and managed by the U.S. Army, Armament Research, Development and Engineering Center.

The program will demonstrate a new technology while at the same time clean up stockpiled munitions components resulting from Talon Manufacturing Company activities. Approximately 3 million pounds of detonators and primers have been left untreated at the Talon facility.

The project officially started October 28, 2002, with the signing of a Consent Order between the West Virginia Department of Environmental Quality and Talon Manufacturing. A public meeting was held December 17 in Mullens, West Virginia, to address public concerns or issues. Equipment will be moved from the Mike Mansfield Advanced



Technology Center in Butte, Montana, to West Virginia in mid-January 2003. Treatment of the stockpiled munitions and components will be part of the demonstration, which is expected to last until September 2004.

Everyone benefits from this effort. The Federal Government will benefit by demonstrating a unique environmentally friendly demilitarization technology that was jointly developed by the U.S. Army and MSE. The State of West Virginia will benefit from the clean up of a stockpile of munitions components that present environmental and safety

hazards. Talon Manufacturing will benefit from clean up of the munitions stockpile during the demonstration as well as the addition of approximately 15 jobs, which will strengthen the company's long-term viability.

This is MSE's second major deployment of a plasma treatment system designed and fabricated by MSE at the Mike Mansfield Advanced Technology Center. In August 2002, 13 semi-trucks transported a plasma demilitarization system to the Hawthorne Army Depot in Nevada for the treatment of munitions.

Plasma Demilitarization System being loaded at the Mike Mansfield Advanced Technology Center for transport to Hawthorne Army Depot in Nevada



MSE Technology Applications, Inc. SBIR Awards – 1997 through 2002

1997	\$ 100,000
1998	170,000
1999	240,000
2000	1,362,800
2001	1,724,900
2002	1,554,674
Total	\$5,152,374

The Small Business Innovation Research (SBIR) Program involves a three-step research and development process.

- Phase I activities are \$70,000 to \$100,000, 9- to 12-month feasibility studies.
- Phase II activities are typically \$750,000, 2-year efforts to perform analytical and experimental studies.
- Phase III involves commercialization of the newly developed technology.

Since September of 1997, MSE has been awarded 14 Phase I and 7 Phase II SBIRs for a total of nearly \$5.2 million. Following is a list of MSE's active SBIRs:

- Phase I U.S. Department of Energy SBIR – The Use of Viscous Liquid Grouts for Temporary Repair at Underground High-Level Waste Storage Tanks at Hanford During Sludge Removal
- Phase II U.S. Department of Agriculture SBIR – Biofilm Barrier for In Situ Groundwater Denitrification
- Phase II Defense Advanced Research Projects Agency SBIR – Biofilm Capture of Chemical Warfare Agents
- Phase II U.S. Department of Defense Missile Defense Agency SBIR – Magnetohydrodynamic Power Generation in Space from a Repetitively Detonated Device
- Phase II U.S. Department of Defense Air Force SBIR – A New Rocket-Based Combined Cycle for Reusable Launch Vehicles
- Phase II NASA Langley Research Center SBIR – Magnetohydrodynamic Energy Bypass Application for Single Stage to Orbit Vehicles
- Phase II Defense Advanced Research Projects Agency SBIR – Mass Injection Pre-Compressor Cooling Engine Program Support (subcontract to HMX, Inc.)

During the period 1997 through 2001, a total of 80 SBIR and STTR Phase I awards were made to Montana companies. Of those awards 33 were awarded to companies in Butte, with MSE receiving a total of 13 awards. The SBIR Program is a great opportunity for Montana companies.



MSE Technology Applications, Inc. received the State of Montana Governor's Excellence in Exporting 2002 Export Marketing Program Award in recognition of export success in Japan, Poland, Greece, and Korea.

Pictured left to right are: Vince Tonc, President, MSE Technology Applications, Inc.; Don Peoples, President, MSE, Inc.; Governor Judy Martz; Neal Egan, Senior Vice President of Business Development, MSE Technology Applications, Inc.; Jeff Ruffner, Senior Vice President, MSE Technology Applications, Inc.



UNITED STATES DEPARTMENT OF COMMERCE
International Trade Administration
Washington, D.C. 20230

Jeff Ruffner, Senior Vice President of MSE Technology Applications, Inc. and Vice President of Plasma Services, was recently appointed by the Secretary of Commerce to serve on the Industry Sector Advisory Committee on Small and Minority Business for Trade Policy Matters (ISAC 14) as a representative of MSE Technology Applications, Inc. and U.S. Industry.

The Industry Consultations Program is jointly administered by the Department of Commerce and the U.S. Trade Representative and includes 17 Industry Sector Advisory Committees (ISACs) and 4 Industry Functional Advisory Committees (IFACs) that advise on trade policy and other trade matters.

Mr. Ruffner's term will expire on March 18, 2004, with the termination of the Committee's current charter. Advisory committee charters are renewed biennially, at which time all members' appointments are considered for renewal.

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