ADVANCED FUEL RESEARCH, INC.

RESEARCH AND COMMERCIAL UPDATE

April 2001

Dear Friend of AFR,

We have made extensive progress in our research and commercial activities at AFR, particularly during the last half of 2000 and in the early part of 2001.

We are proud of our technology development efforts and our recent commercialization successes, and wanted to share some of them with you.

If you would like additional information on any of AFR's activities or would like to discuss a potential collaborative effort, please contact us.

Best regards,

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Advanced Fuel Research, Inc.
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RESEARCH

We have a number of exciting technology projects currently underway at AFR, including:

Next Generation Energy
Dr. Marek Wójtowicz marek@AFRinc.com
Dr. Michael Serio mserio@AFRinc.com

The Manufacture of Carbon Black from Oils Derived from Scrap Tires (EPA)

Pyrolysis Processing of Animal Waste for Remote Off-Grid Power Generation (DOE)

Pyrolysis Processing for Solid Waste Resource Recovery in Space (NASA)

Electronic Materials
Joseph Cosgrove cosgrove@AFRinc.com

Whole Wafer Thermal Imaging for Real-Time Process Monitoring and Control (NSF)

TurboSense
James Markham jim@AFRinc.com

Gas Turbine Engine In-Situ Multiple Pollutant Sensing (EPA)

Portable Low-cost Multi-gas Analyzer (DOE)

Combustion Instability Sensor for Turbine Engine Augmentor Rumble and Screech (DOD)

Turbine Pyrometry (airfoil temperature measurements) (DOE, NASA, DOD)

Real-Time Analyzers
Dr. Stuart Farquharson farqu@AFRinc.com

First known Raman measurements within an industrial autoclave (DOD)

Real time Raman measurements of polymers and composites (DOD)

COMMERCIAL ACTIVITIES

Kenneth Wexler kwexler@AFRinc.com

AFR continues to expand it's commercial activities, based upon technology developed at AFR, including:

Surface-Enhanced Raman Spectroscopy (SERS)
Parts-per-million analysis vials grow in sales via our e-business website www.afrinc.com/rta.htm

Real-Time Analyzers exhibited at its first show, the Pittsburgh Conference.

Synfuel Analysis
Using a **customized TG/FTIR** technique (thermogravimetric analysis with Fourier transform infrared spectroscopy) to measure the chemical change of synfuel from raw coal.

Thermal Barrier Coating Analysis
Using a customized spectral emissometry technique to analyze thermal barrier coatings, and other thin film coatings, for evaluation of their heat transfer characteristics

On-Line Technologies, Inc.
AFR's spin-off company agrees to be acquired by MKS Instruments. For more details, see www.mksinst.com/pronline.html