

Pittsburgh Electric Engines, Inc...

Tests on Innovative Turbo Fuel Cell Engine Look Promising

On April 15, Owen S. Taylor of Pittsburgh Electric Engines, Inc. (PEEI) hosted State Senator Kim Ward, her Chief of Staff Rob Ritson and State Representative Mike Reese, along with local officials Mayor Gerald Lucia of Mt. Pleasant, Township Supervisors Frank Puskar, Jack Rutkowski and Duane Hutter for an update and tour of the engine research company's facilities in the Mount Pleasant Glass Centre.

Using patents purchased from Westinghouse a decade ago, Taylor founded PEEI to develop a Turbo Fuel Cell Engine (TFCE) to replace environmentally polluting, heavy truck, bus and mobile electric power diesel engines. He explained in the USA there is a \$4 billion a year engine market for heavy highway trucks alone. Current projections indicate PEEI's new fuel cell motor will offer 40% fuel savings over today's diesel engines, that could add up to as much as a national fuel savings of \$7 billion a year.

In addition, Taylor pointed out the new Turbo Fuel Cell Engine is environmentally clean. The innovative fuel cell could mean reducing CO₂ pollution by 64,000,000 tons and NO₂



Owen Taylor, president of PEEI, Inc. along with Mt. Pleasant Mayor Gerald Lucia, Mt. Pleasant Twp. Supervisors Frank Puskar, Jack Rutkowski and Duane Hutter, State Senator Kim Ward and far right, State Representative Mike Reese looking at the mockup of a truck utilizing TFCE fuel cells.

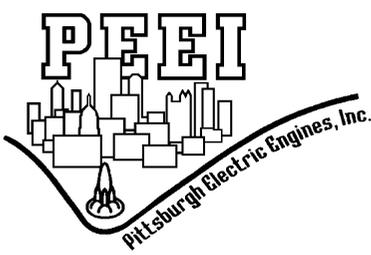
by 200,000 tons per year, if every diesel truck engine were replaced by PEEI's turbo fuel cell engines.

Major funding for the PEEI research work has come from the military, thanks to help from the late Congressman John Murtha, who recognized the multiple mission flexibility for vehicles and mobile generators powered by turbo fuel cells, which could use several fuel sources including natural gas.

Taylor, a former Westinghouse research engineer, explained how the fuel cell ceramic tubes were developed

into a multi-function bundle to create the desired engine configuration and horse power. Even as the process is under development and extensive testing, PEEI's focus is on ways to continually reduce manufacturing costs. This research required development of controlled leakage seals subject to high operating temperatures with the sealing between moving process gasses. PEEI also patented a critical flexible electrical connection key to making the multi-function bundle possible.

(Cont.d on Page 21)



402 E. Main Street
Mount Pleasant, PA 15666
in the
Mount Pleasant
Glass Centre, Ste. 800

724.547.9170
Fax: 724.547.9171

Innovative Energy Research
using Turbo Fuel Cell Engine,
with 40% fuel savings over
diesel usage for heavy trucks,
transportation vehicles and is
environmentally clean.

PEEI...

(Cont. from Page 20)

A PA DEP grant has provided PEEI with essential equipment such as a horizontal electric kiln, extruder and vertical electrical kiln; all critically important in developing a non-polluting manufacturing process.

Taylor told local leaders, the developmental work currently is operating a Multi-Function Bundle in a laboratory test that, to date, has racked up over 5,900 hours of loaded operation. He added, "The life of the average car engine is typically less than 4,000 hours." This could be a further engine cost saving for commercial vehicles.

Pittsburgh Electric Engines goal, when the developmental work is complete, is to license the TFCE process to major engine builders who will establish, in turn, manufacturing plants in this area, creating a new industry and good paying factory jobs. That economic possibility, along with using Pennsylvania's resources, caught the attention of local governmental leaders.