



ONE TO WATCH

[PEAT INTERNATIONAL INC.]

HEAT WAVE

PEAT International Inc., Northbrook, Ill., has been at the forefront of waste-to-energy research for more than a decade. The company was formed in March 2002 when a holding company acquired all of the assets, including Plasma thermal destruction and recovery (PTDR) technology, from a research and development-minded company called PEAT Inc., which stands for Plasma energy applied technology.

PEAT International focuses its core PTDR systems toward hard-to-treat hazardous waste or industrial waste such as medical waste, pharmaceutical waste and refinery sludges. The sole heat source within a PTDR system is a plasma-arc designed to create a uniform operating temperature with a PTDR reactor. This allows a system to destroy the toxic constituents that make up these difficult-to-treat waste streams, according to the company.

PEAT's PTDR single stage plasma-thermal process is designed to transform hazardous waste through molecular dissociation at 2,732 degrees Fahrenheit (1,500 degrees Celsius) into recoverable, nontoxic end products, synthetic gas and heat, metals and a vitrified glass matrix. Emissions are below standards used anywhere, according to



the company. PEAT currently operates two facilities in Taiwan, one in China and one in Sacramento, Calif. Daniel Ripes, PEAT corporate finance director, answered the following questions.

Q: What new projects or systems have you been focusing on?

A: In October 2013, PEAT commissioned a 132 pound (60 kilogram)-per-hour PTDR system in Shanghai designed for medical waste and oil refinery sludge. We are in the contract stages for two additional projects for slightly larger systems—one for medical waste and one for refinery sludge.

Q: What makes you different from your competitors?

A: PEAT markets some PTDR systems specifically for on-site treatment as the physical footprint is minimal, like the environmental footprint. Another differentiator is that all the reactions occur in one reactor with the one heat source for true gasification versus plasma-assisted gasification using a multiple reactor configuration where even some combustion may occur.

Q: Where do you see your company five years from now?

A: As a major developer of plasma-arc gasification projects across Asia, Europe and North America. **e**

The plasma thermal destruction and recovery (PTDR) technology from PEAT International transforms waste into a variety of products.



AT A GLANCE

Company:
PEAT International Inc.

Principals: Joseph Rosin, president and chairman of the board; Robert Rosin, director

Year Established:
2002

No. of Employees:
15

Website:
www.peat.com

Services Provided:
Plasma thermal destruction and recovery (PTDR) systems are focused toward hard-to-treat hazardous waste or industrial waste such as medical waste, pharmaceutical waste and refinery sludges for conversion into synthetic gas and heat as well as other nontoxic end products.