

Agricultural Plastics Recycling is on the Move in Madison County

A new program on the Madison County Dept. of Solid Waste's drawing board purports to safely and economically recycle Agricultural (AG) and rigid plastic, which will help the environment, save space in its County landfill and also help to solve a longstanding problem for area farmers. The plan is to turn plastic back into usable diesel fuel.

Madison County is striving to find a solution to effectively recycle AG and rigid plastic. These efforts are arousing the interest of neighboring counties that have expressed interest in learning more about this new process and pledging to support Madison County's efforts.

Director James A. Zecca said, "Everyone wants more details and wants to know when we plan to start the program."

He has visited a number of counties to discuss the new AG and rigid plastics to oil program and on October 17, 2012 Director Zecca, along with Solid Waste Committee chairman Jim Goldstein and other Madison County representatives met with the Chief Executive Officer and the Chief Operating Officer of JBI Inc. of Niagara Falls, NY to get the ball rolling.

According to CEO John Bordynuik the company has discovered a way to "crack the code" and turn plastic back into diesel fuel. Their plant in Niagara Falls is an innovative North American fuel company that transforms unsorted, unwashed waste plastic into ultra-clean, ultra-low sulphur fuel without the need for refinement. JBI Inc.'s patent pending Plastic2Oil® (P2O®) process is a commercially viable, proprietary process designed to provide immediate economic benefit for industry, communities and government organizations with waste plastic recycling challenges.

"We are extremely eager to move forward with this program," said Zecca. "The first step is to start collecting AG and rigid plastic from in and around Madison County, bale it and ship it to the Niagara Falls facility where it will be turned into clean diesel fuel. We are confident that as this program evolves JBI Inc. will realize the untapped potential here in Madison County and the surrounding counties and commit to establishing a presence here in Madison County.

"As soon as a contract is put in place with JBI Inc. more information on the collection process will be released," said Director Zecca.



James Zecca, director of the Madison County Dept. of Solid Waste inspects bales of agricultural plastic that were sent to JBI Inc. in Niagara Falls as part of a test load to make sure the product collected can be processed. In the background is a large bale of rigid plastic that was also shipped to JBI Inc. Photo by Sharon A. Driscoll



In March a contingent from Madison County traveled to Niagara Falls to tour JBI Inc. CEO John Bordynuik explains how the AG and rigid plastic is changed back into diesel fuel. Madison County Recycling Coordinator Sharon Driscoll holds a jar of diesel fuel, derived from discarded plastic. IDA Director Kipp Hicks, second from left, and Kevin Voorhees of Barton and Loguidice Engineers, right, pay close attention to Bordynuik's description.

An Era Comes to an End – Tire Derived Aggregate Program to End

TDA, Tire Derived Aggregate, is an engineering application that uses scrap tires for a light weight, highly permeable aggregate that also has good insulation properties. With the purpose of marrying recycling opportunities to waste disposal needs, the Center for Integrated Waste Management (CIWM) at the University of Buffalo was home to a research, development, and outreach program for the appropriate use of tire derived aggregate or TDA, a program whose time is coming to a close with NYS's financial support for the TDA program being discontinued. "The TDA Program was always intended to be temporary", says Louis P. Zicari, Associate Director of the CIWM "We always knew there would be an end to the program." As indications of TDA's success, according to Mr. Zicari, large TDA processors are now worried about getting enough scrap tires to make TDA for their needs. Whether we have solved the scrap tire problem is debatable. In Mr. Zicari's view, limited TDA availability may be region specific. "I'm not convinced the whole state has that problem. Recycling is like the saying about politics – it's all local!"

CIWM brought together multiple New York State agencies (DEC, DOH, DOT, ESD) that worked with industry and municipal representatives on a Technical Advisory Board that has helped guide the TDA Program's research and outreach efforts. Program personnel carried out a range of Environmental Studies at laboratory, pilot and full-scale that provided substantial data on the limits of chemical leaching of TDA, as well as on the hydraulic and physical performance of the material. These collaborative efforts with the regulatory community cleared the way for NYSDOH formation of changes to 10 NYCRR Appendix 75-A (Wastewater Treatment Standards for Residential Onsite Systems), adopted in February 2010, that allow TDA as a replacement for mined stone; and NYSDEC issued Beneficial Use Determinations to several tire recyclers and individual project owners for production and use of TDA in Civil Engineering applications around the state.

CIWM established a centralized information clearinghouse on TDA in Civil Engineering applications through the creation of the first comprehensive web site on the topic. Information on TDA use in septic systems, building foundations, highway embankments, geo-thermal research, pipeline backfill, and road grade insulation remains available through the CIWM website

www.tdanys.buffalo.edu/UB/