



Lodge Manufacturing Company

Bio-Diesel Project Report

November 2005 – March 2007



Tennessee Pollution Prevention Partnership Success Story



Lodge Manufacturing Company
P.O. Box 380
South Pittsburg, TN 37380
423-837-7180
www.lodgemfg.com

Biodiesel Use

A Biodiesel Workshop presented by Jonathan Overly from the East Tennessee Clean Fuels Coalition and sponsored by Benton Oil in Chattanooga, TN, was held in September of 2005. This meeting was attended by three Lodge representatives as well as a cross-section of industries from the local area. Mr. Overly had made a Biodiesel presentation to the Tennessee Pollution Prevention Roundtable previously.

With the information gathered from the workshop and presentation, Lodge began researching the possibility of converting to a Biodiesel product to replace the existing diesel fuel used. In November, 2005, the first delivery of 5% biodiesel fuel was made. No problems were encountered relating to the product, other than filters had to be changed due to the carbon cleaning ability of the biodiesel products. The amount of biodiesel was changed at 10% increments as the program progressed reaching a 90% blend before cutting back to 20% for the winter months of 2006-2007.

Lodge currently runs several pieces of equipment that include a track hoe with generator, three front end loaders, two bobcat loaders, three forklifts, one sweeper, one generator, and a steam cleaner.

The driving force for the change is the uncertainty of imported oil, the use of a renewable energy source produced in the U.S. and the environmental benefits of burning a much cleaner fuel. Biodiesel reduces ozone forming potential and also reduces emissions of sulfur, carbon monoxide, particulate matter, and hydrocarbons when compared to diesel. Since the start of the program, we have averaged 450 gallons a month of biodiesel (read "displaced 450 gallons a month of diesel") with an estimated blend of 45%.

1987 Hitachi Track-hoe



1960 International Front End Loader



1973 International Front End Loader



Walden Front End Loader



1997 Daewoo



1997 Bobcat



1998 Caterpillar - Maintenance



1994 Powerboss Sweeper



GM Generator



Steam Cleaner



Massey-Ferguson Tractor



BioDiesel Works!!

