

## NC Alternative Fuels Consortium Meeting Notes from January 29, 2008

**In attendance: Tim Brooks, Dept of Corrections; Ronnie Faison, Dept of CC & PS; Howard Isley, Dept of Ag & CS; Larry Lane, UNC-Charlotte; Art Rupard, Dept of Ag & CS; Jean Speight; Ports Authority; Cynthia Moseley, SEO; Don Sykes, Purchasing & Contracting; Bruce Thompson, NC DOT; Craig Warren, Dept of Public Instruction; Brian Potter, Potter Oil; Ronald Allison, Motor Fleet Management; Bryan Roy & Anne Tazewell NC Solar Center; via phone: Grant Braley, Purchasing & Contracting; Jennifer Epperson, Gov Easley's Office; Clarence Waddell, NC A&T; Cathy Griner, Purchasing & Contracting; Bill Eaker LOS Clean Vehicle Coalition; Tobin Freid, Triangle Clean Cities**

### **1) Update on Biodiesel at DOT sites ~ Bruce Thompson, NCDOT**

DOT began to have difficulties with B20 at some fuel sites supplied by Potter Oil in November and has suspended use in all sites supplied by Potter. Still using B20 at sites supplied through state contract by Mansfield (World Energy). DOT intends to go back to B20 and continue expanding B20 to all its fueling sites as soon as supply is assured. Will likely start in the western part of the state. Can't force divisions to convert, will encourage all to switch over to meet DOT's Petroleum Displacement requirement. In addition to DOT, SHP had trouble with one diesel vehicle and Dept of Ag had reported some problems with B20 at DOT sites. DOT uses a 2 micron filter on all its pumps and may consider going to a winter B20 blend requiring soy based biodiesel and be feedstock neutral the rest of the year

### **2) Biodiesel State Contract Supply ~ Brian Potter, Potter Oil**

Purchasing BQ 9000 certified fuel has become a priority for Potter Oil. BQ 9000 is quality assurance program for the biodiesel industry. However there is not a lot of BQ 9000 certified production available (no producers in NC) and can add 20 c/p/g for freight to bring in to NC. Potter does not believe DOT's problem was related to fuel quality, but could be fuel handling. Fuel may have gotten frozen at some point which creates precipitates that remain in suspension until the temperature goes up to 70- 80 degrees. Poultry fat based biodiesel will also begin to cloud at a higher temperature than soy based biodiesel. With feedstock costs for soy based fuel running close to \$4 per gallon many producers have switched to animal fats. Animal fat costs between .75- \$1.00 less per gallon than soy feedstocks. The first state contract for biodiesel just allowed for soy based biodiesel. The current one is feedstock neutral, although it prohibits beef tallow and palm oil. Cold flow issues with B20 have been aggravated by ULSD because ULSD tends to gel at higher temperatures than LSD. Anti-gel additives are necessary but they add to cost and it is challenging to find effective additives. Potter additizes all its B20 for cold weather performance

### **3) Biodiesel Fuel Quality ~ Rachel Burton, Central Carolina Community College/Piedmont Biofuels**

In Dec 2007 ASTM subcommittee voted on several issues regarding biodiesel. The full committee will vote on these in June.

- o Allowing a 5% blend of biodiesel to be included in the diesel fuel spec (D975) and heating oil spec (D396).
- o Approving a "stand alone" spec for B20 (A big step for the industry since up to the point there is only an ASTM spec for B100 which can be blended with ULSD)
- o Tighten up acceptable range for moisture content
- o Implement a "cold soak" test. The purpose of the test is to prevent materials in biodiesel from falling out of solution, causing filter clogging. The fuel is chilled, filtered and measured for settled material

Piedmont Biodiesel uses a 1 micron filter on its pumps. Several quality test methods were reviewed. One example is Fleet Biodiesel which has an inexpensive (\$7 each) tests for microbial growth, glycerin, water,

and percent of biodiesel. Learn more at: <http://www.fleetbiodiesel.com/>. Rachel's presentation can be found with these meeting notes on the [www.cleantransportation.org](http://www.cleantransportation.org) website under *meetings*.

#### 4) **Petroleum Displacement Plan ( PDP) ~ Bryan Roy, NC Solar Center**

- Release of FY 2006-07 Report to the Joint Legislative Commission on Governmental Operations, Recommendations included;
  - Initiatives to encourage conservation and efficiency
  - Increase the number of hybrid-electric vehicles
  - Replace older vehicles with more fuel-efficient ones
  - Encourage the use of alternative fuels
  - Recommend a change to MFM leasing rates to better encourage conservation
  - Review fuel allowances
  - Examine the bid procedure and purchasing policy
- Individual Department, University, and Community College meetings are being set up by the Solar Center and SEO to work directly on assuring PDP success

#### 5) **EPAct Credit Program ~ Anne Tazewell, NC Solar Center / Cynthia Moseley, State Energy Office**

Since October 2007 the SEO has facilitated the trade of 576 EPAct credits. Credit trades range from 2 going to entities such as Old Dominion University and U of MA-Amhurst to 318 credits to various regulated fleets being brokered by World Energy. When all these trades are complete the Alternative Fuel Revolving Fund will have \$481,100 to be used to expand the use of alternative fuel and advanced transportation technology. Only \$2,200 has been deposited into the Fund so far. To date Motor Fleet and DOT have generated excess credits through their use of E85. At this point no extra credits are being generated because MFM's use of E85 has actually declined due to the closing of one of its stations in Raleigh. To learn more about state regulated fleets visit

[www1.eere.energy.gov/vehiclesandfuels/epact/state/state\\_gov.html](http://www1.eere.energy.gov/vehiclesandfuels/epact/state/state_gov.html)

The EPAct Credit Banking and Selling Program demonstrates that there is a tremendous value in over-complying with this federal regulation. Excess credits which are being sold are worth about \$1,000 each.

#### 6) **Announcements**

- **CNG refueling infrastructure from DENR is still available** – contact Anne.Galamb@ncmail.net
- **Biodiesel Agribusiness Conference (Clayton) – March 5**  
<http://www.ncbionetwork.org/index.cfm?dir=calendar/viewEvent.cfm&EventID=695>
- **Clean Fuel Advanced Transportation Funding Deadline – March 28**  
Over \$500,000 available for transportation related emission reduction projects in 24 NC counties. Information Sessions/Calls on February 15 from 1:00-3:00 and March 13 from 10:00-12:00. Call in number is 919-515-7150 for both calls. Call in early as calls will last only as long as there are questions!
- **Biodiesel Workshop at ODB NC Equipment Show (Raleigh) – April 16, 2pm – 4pm**
- **Mobile CARE Symposium & Awards , May 6<sup>th</sup> Proximity Hotel, Greensboro NC**  
Call for symposium presentations are underway and due Feb 28<sup>th</sup> – tell us about your research, demonstration and/or deployment of alternative fuel and advanced transportation technology and practices. Nominations for Mobile CARE awards are also being sought. Download guidelines and applications at: [www.engr.ncsu.edu/ncsc/transportation/events.htm](http://www.engr.ncsu.edu/ncsc/transportation/events.htm)
- **Asheville CNG Conference – March 25** more information Bill Eaker [bill@landofsky.org](mailto:bill@landofsky.org)
- **2008 NC Alternative Fuels Consortium Meetings MARK YOUR CALANDERS!**
  - May 2, 10:00-1:00; 1 hour tour of Piedmont Biofuels biodiesel refinery from 10:00-11:00 with meeting & lunch at Central Carolina Community from 11:30-1:00
  - July 29, 1:30 – 3:30
  - October 28, 1:30 – 3:30