

February 21, 2008

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RE: Final Report for the National Biodiesel Foundation's Grant with the Maryland Energy Administration Grant Number 2007-01-B0314

On behalf of the National Biodiesel Foundation, we are proud to submit this final report for Maryland Energy Administration Grant Number 2007-010B0314. This grant for \$100,000 was signed January 2007 and the final biodiesel fuel quality seminar took place in October. Grantees reported supporting this effort with approximately \$159,441 of matching funding for a total project of \$259,441. Twenty-seven applications were received and nine awarded funding. This grant included 18 seminars, over 800 registered attendees, in nine states. After each seminar, presentations were uploaded to respective Clean Cities' web pages for internet access. Grantees reported their seminars were well attended and the material was timely.

In addition to the seminars, this grant included a fuel quality hotline which began in August. The hotline provides triage for fuel related problems that are not adequately addressed by fuel distributors or biodiesel producers. In addition to initial diagnosis, analysis, and assistance with customers, fleets, or fuel distributors, the hotline also provides a level of detailed troubleshooting assistance and chemical analysis. The hotline provides assistance to disgruntled users and fuel distributors and supports them as they user or distribute biodiesel blends. *Attachment 1* has more information on this effort.

The third aspect of this project was Weights and Measures. NBB contracted with Agrifuels LLC to work with states to catalog information regarding their authority to regulate fuels; their status in adopting ASTM D6751 as the fuel specification for biodiesel; enforcement procedures; and their testing programs. *Attachment 2* summarizes the year's activities under this project.

As requested, the following is further information on the seminars topics, participants and lessons learned.

Topics Covered in Seminars

Each grantee provided a final report which included a list of the topics discussed at each seminar. A list of those topics is provided below:

- Biodiesel 101: ASTM Standards, BQ9000 accreditation, fuel distribution, feedstock supply and demand, Original Equipment Manufacturer (OEM) warranty information, national legislation information, and emissions;
- Specific state legislation: NM discussed their new legislation, incentives and tax credits; Oregon presented new state requirements, etc.;
- Incentives: federal, state and local incentives, and how to apply for infrastructure rebates;
- Local issues: In general, this topic focused on biodiesel supply and distribution;
- Tours: In Ohio, a tour of the Center Oil biodiesel production plant and a rack blending facility was provided for those interested;
- Fuel Quality: Fuel quality was presented at all the event, including a discussion of how to test biodiesel for quality at various steps in the distribution process;
- Tank cleaning;
- Material Compatibility;
- State's quality and labeling program; and
- Questions and answer session.

Attendees included producers, distributors, petroleum marketers, educators, regulators, installers, reporters, state fire marshals and other interested in biodiesel fuel quality. Following is Overview of Grant Funding and Participation table summarizing activities under this grant.

Overview of Grant Funding and Participation

State	Coalition	Grant Award	Original Est. Match	Actual Match	Total	Number of Participants	Number of Seminars
CO	Denver Metro Clean Cities Coalition,	\$10,000	\$21,927	\$436	\$10,436	78	2
NC	Triangle Clean Cities Coalition	\$10,000	\$11,300	\$9,530	\$19,530	100	3
NM	Land of Enchantment Clean Cities Coalition	\$10,000	\$0	\$5,983	\$15,983	46	1
OH	Clean Fuels Ohio,	\$10,000	\$20,000	\$13,609	\$23,609	96	4
OR	Columbia Willamette Coalition	\$10,000	\$15,000	\$7,820	\$17,820	110	1
PA	Greater Philadelphia Clean Cities (Mid-Atlantic Region)	\$10,000	\$10,600	\$2,753	\$12,753	60	1
SC	Palmetto State Clean Fuels Coalition	\$10,000	\$5,000	\$6,827	\$16,827	140	1
VA	Virginia Clean Cities	\$10,000	\$12,209	\$8,159	\$18,159	90	4
WA	Puget Sound Clean Cities Coalition	\$10,000	\$2,746	\$1,824	\$11,824	75	1
	SESI	\$8,000		\$2,500	\$10,500		
	Weight & Measures - NBB		\$25,000	\$25,000	\$25,000		
	NBF	\$2,000			\$2,000		
	HOTLINE - NBB		\$75,000	\$75,000	\$75,000		
		\$100,000	\$198,782	\$159,441	\$259,441	795	18

Feedback and Lessons Learned

Seminars included scheduled time for net-working and discussion and found this time very helpful. Grantees reported a high degree of satisfaction from seminars stating information was timely, educational and informative.

The Palmeto State Clean Fuels Coalition will continue to partner with South Carolina entities interested in the advancement of biodiesel fuel quality. Future events include hands-on biodiesel fuel production workshops.

The Washington Puget Sound Clean Cities Coalition followed up the seminar by issuing more than 1,000 copies of a brochure on biodiesel quality and labeling to inspectors for distribution when on-site visits. The seminars were used to assist in writing brochures and assuring materials were targeted and focused on what the audience needs to know and cares most about.

We believe this project was timely and essential to the states and the biodiesel community for the education of biodiesel fuel quality, state incentives, use requirement etc. If funding becomes available in 2008, the NBF and the grantees believe there should be more seminars this and in future years.

If you have any questions, or would like to discuss this project, please contact me at 1-800-841-5849. It has been a pleasure working with you and we look forward to discussing and conducting future grants with you in 2008.

Sincerely,



Tom Verry
Executive Director

Cc: National Biodiesel Foundation Directors

ATTACHMENT 1:

National Biodiesel Hotline

Meg Corp and the Center for Diesel Research (CDR) were selected by NBB as the contractors for this effort. The formal name hotline number details were finalized in July and became operational in August. This report covers all hotline activity from the month of August through November. MEG Corp has successfully received and responded 165 calls since the hotline's creation.

There have been three major issues addressed by the hotline ranging from 10 filters/fuel samples to over 30 samples from a single issue. These issues required extensive laboratory testing and research. When resolved, it was determined that these issues were caused by bacterial growth, oxidation of fuel, sterol glucosides and water contamination. The appropriate testing results and advice on necessary actions were relayed to the appropriate parties.

There were several other issues that required the use of laboratory testing to a lesser extent. These included issues on physical properties of Biodiesel, LSD, tank sediment, Biodiesel production, fuel quality, additives, oxidation, water content, and microbial growth. These issues were resolved and results were relayed to the appropriate parties.

Of all the issues addressed to date, 60% have been the result of microbial contamination, in most cases stemming from excess water concentrations. Fifteen percent of the issues stemmed from a substance comprised mainly of sterol glucosides and excess glycerin plugging the filters. Ten percent of the problems stemmed from oxidation of the fuel. The rest of the issues dealt with various other problems

Meg Corp also distributed information on the helpline during seminars in Wyoming, New Mexico, and North Carolina, South Carolina, Iowa, Illinois, Washington and Wisconsin.

ATTACHMENT 2:

Fuel Quality Enforcement Education National Conference of Weights and Measures

Ensuring consumers have a high level of confidence in the biodiesel they purchase is a top priority for the NBB and key element in the industry's continued growth. The NBB contracted with Agriuels LLC to work with states to catalog information regarding their authority to regulate fuels; their status in adopting ASTM D6751 as the fuel specification for biodiesel; enforcement procedures; and their testing programs.

AgriFuels LLC made Fuel Quality Assurance presentations at the North East Weights and Measures Association's (NEWMA) and Southeast Weights and Measures Association's (SWMA) annual meetings to educate participants about biodiesel quality assurance and to encourage the adoption of ASTM D 6751. AgriFuels also contacted state officials to determine the status of their biodiesel quality assurance programs, and encourage the adoption of ASTM D 6751 in those states that have not already adopted the ASTM standard.

As of 31 December 2007, 36 states have adopted D 6752, and six additional states are using it as a guide. Of these 42 states, 33 indicate that they now regulate biodiesel, and 16 of these proactively test B100.

AgriFuels has used the information gained from the states to populate the State Fuel Quality Index, now available on the NBB website. This index provides a one-pager on each state's fuel quality assurance program, including information on whether biodiesel and/or biodiesel blends are regulated, the standards utilized and any testing programs currently in place.

AgriFuels prepared a presentation on Biodiesel Quality to update attendees at the National Biodiesel Conference.