Product Transfer Documentation: Biodiesel Current Status and Considerations

Prepared by Steve Howell and Sam Bell as background for discussion with the Biodiesel Product Transfer Document Working Group of the Fuels & Lubes Subcommittee of NCWM.

It has not been approved or sanctioned by the Fuels & Lubricants Subcommittee or by NCWM. The options for consideration are not exhaustive. Additional background and options for consideration are being solicited and are encouraged.

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Biodiesel Industry Background

Biodiesel is a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats which meets the requirements of ASTM D6751, 'Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels'. Biodiesel is intended to be used in equipment or applications that currently use petroleum based diesel fuel or heating oils. Biodiesel can be used as a pure fuel, or as a blend with conventional petrodiesel as it blends completely with petrodiesel in any percentage and does not come out of solution even in the presence of tank water bottoms. Most biodiesel used today is in blends of B20 or less with petrodiesel.

Biodiesel, being made from fats and oils produced each year as natural by-products of producing food (high quality meats or seed oil meal such as soybean meal), is a renewable, domestically produced fuel. Biodiesel use reduces particulate matter, unburned hydrocarbon and carbon monoxide emissions compared to petrodiesel when used in un-modified diesel engines, and also reduces NOx in home heating oil applications. Biodiesel was recently certified by US EPA as an 'Advanced Biofuel' under the new Renewable Fuel Standard-2 program and is a low cost compliance option for RFS2 'obligated parties' (i.e. petroleum refiners) to meet the Bio-mass based diesel and Advanced Undifferentiated Biofuels requirements of the RFS2. These two category requirements ramp up over time, reaching a total fuel requirement of 5 billion gallons by 2022.

Since biodiesel is produced domestically it creates domestic jobs, reduces dependence on foreign oil, and reduces the overall US trade deficit. According to the National Biodiesel Board, 800 million gallons per year of biodiesel production support over 31,000 domestic jobs, while 2.5 billion gallon per year would support 74,000 domestic jobs.

Lastly, B20 and lower blends can be transported, stored, blended and dispensed using the same equipment as conventional petrodiesel. Biodiesel blends (B5) are currently being transported in pipelines that carry jet fuel in Europe as well as non-jet pipelines in the US. Efforts are currently underway to facilitate biodiesel blend pipeline shipments in jet lines in the US as well.

All of these factors have given rise to increasing biodiesel use in the US, with over 1 billion gallons of B100 produced and used in the US in 2011. At present, installed biodiesel production capacity exceeds 2 billion gallons or pure biodiesel (B100) per year, and the National Biodiesel Board has provided comments to the US EPA that there is a sufficient current supply of oils and fats available for biodiesel production to allow the industry to supply 2.5 billion gallons of B100 by 2017.

Current status of ASTM Specifications and Previous Deliberations on Blend Content Disclosure

The effort to develop an ASTM specification for biodiesel began in 1993. The biodiesel specification was developed as a performance specification in a similar way as ASTM has developed specifications for petroleum based diesel fuels (petrodiesel for short).

For traditional petrodiesel, the specification is based on the properties necessary for proper engine operation and not on the particular crude oil, refinery unit operations, or blending done to achieve the final petrodiesel product. As long as it meets the performance specifications identified in D975 it is an acceptable fuel. In addition, there are two grades of D975 fuel used for conventional diesel engines, No. 1 and No. 2. Even though blending No. 1 and No. 2 diesel fuel is common—especially in northern parts of the country in the winter—there is no separate set of specifications for blends of No. 1 and No. 2 petrodiesel. If the No. 1 meets spec, and the No. 2 meets spec, then the two may be blended in any percentage and used in conventional engines without re-analyzing or checking fuel properties.

Following the lead and example of the petrodiesel industry, the biodiesel (B100) specifications were based on the properties needed for proper engine operation and not on the vegetable oil or animal fat feedstock, biodiesel processing options, or blending done to achieve the final B100 product. The B100 specification (approved as D6751 in 2001) was also based on precedent set by petrodiesel as far as blending with petrodiesel was concerned. If the B100 met specification and the petrodiesel met specification (either No. 1 or No. 2) then biodiesel and diesel fuel may be blended in any percentage and used in conventional diesel engines without re-analyzing or checking fuel properties.

Although Europe had experience with B100 as a pure fuel, most experience in the US was with B20 blends or lower. So in the end, ASTM members voted to change the biodiesel specification to a blend stock specification intended for B20 use and lower. Users should consult their engine manufacturer for use of D6751 in blends higher than B20. Passage of D6751 in 2001—and the use of the 'if the parent fuels meet their specifications the two can be blended' philosophy—provided a base set of quality procedures which allowed the industry to thrive. Soon after the initial specs passed in 2001, OEM's, regulators, and users requested ASTM go ahead and develop finished product specifications for biodiesel blends as it was difficult to determine if a biodiesel blend was acceptable if the parent fuel analysis was not known or available.

After significant deliberation, ASTM modified the existing petrodiesel specification ASTM D975 to include the allowance of up to 5% biodiesel meeting D6751 prior to blending as a fungible component into the D975 performance specification in 2008. No changes were made to the test methods or parameters in D975 for the B5—the finished biodiesel blend must meet all the same requirements as petrodiesel did previously. Biodiesel is now just considered one of a variety of blending compounds at the disposal of refiners and blenders, as the engine does not care if the blend contains 1% or 5%--it all meets the same performance standard, ASTM D975. As part of the balloting and deliberation, however, significant changes to the D6751 standard were required before the ASTM committee agreed to modify D975 to include up to B5. An oxidation stability parameter was added to D6751, the acid number was lowered, and further controls were required on veg oil and animal fat minor components—those which can be found in vegetable oils and animal fats but which aren't found in petrodiesel and are not therefore measured in petrodiesel.

ASTM decided the B6 to B20 standard would need to be a separate specification, since the committee determined B6 to B20 should contain additional parameters for acid number and stability that are not found in D975. It passed in 2008 as D7467. The B6 to B20 specification, D7467, is also a performance based specification not dependent on the blend level as the engine doesn't care whether the blend contains 6%, 11%, or 20%. With little experience and only small use of blends over B20, very little work has been done on finished specifications higher than B20 at ASTM.

While the biodiesel levels must be maintained within the stated values of D975 or D7467, and this is a requirement of the specification, the specifications do not require the exact blend level to be reported for either D975 or D7467. This is because ASTM sets performance based specifications and as long as the blend falls within the specification sufficient engine performance does not depend on the exact blend level. There was also a strong desire among the ASTM members to maintain the low cost, fungible, performance based nature of the ASTM specifications so there was no need to re-analyze any property of the fuel after blending or co-mingling two compliant fuels together. Requiring the reporting of the exact blend level would require re-analysis for the blend level in order to provide that information each time two D975 fuels or two D7467 fuels were blended or co-mingled. Negatives were cast on both the D975 and on D7467 ballots suggesting the exact blend level of biodiesel should be a requirement. These negatives were overwhelming voted non-persuasive using the reasoning stated above.

Subsequent to the passage of the blend specifications in 2008, ASTM received a comment from members of the truck stop industry that adding 5% biodiesel to diesel fuel already containing an un-disclosed amount of biodiesel may cause the resulting blend to fall outside of D975, and they requested changes in the ASTM standard to address this issue. After much deliberation and several ASTM subcommittee ballots on the wording, the subcommittee passed ballot wording below which was aimed at addressing the concern. Some members thought the information was redundant, but the ASTM members were

willing to put in the wording to show support for the truck stop industry. The proposed wording in D975 (a similar version was balloted for D7467) was:

> "A D975 compliant diesel fuel may contain up to 5 vol% biodiesel without declaring the biodiesel content. Therefore those blending biodiesel into a D975 compliant fuel to produce a D975 compliant diesel fuel are cautioned to confirm the biodiesel content of base diesel fuel or of the resulting blended product in order to ensure that the final blend does not exceed the maximum allowable biodiesel content of 5 vol%."

Very few negatives were received on this wording at the ASTM D2 main committee level indicating good overall support for the additional informative wording. In the end this wording was not adopted by ASTM at the request of different members of the truck stop sector, the standard was left as-is (i.e. no reporting requirement for exact blend level) and further discussion of the issue was dropped from consideration.

Current status: Federal Trade Commission (FTC) Labeling Requirements

In 2008, the Federal Trade Commission amended the Fuel Rating Rule - 16 CFR Part 306 – to incorporate specific labeling requirements for biodiesel and all biomass-based diesel fuels above 5 percent concentration, as required by Section 205 of the Energy Independence and Security Act of 2007 ("EISA"), 42 U.S.C. 17021. The Fuel Rating Rule designates methods for rating and certifying fuels, as well as posting the ratings at the point of sale. The Rule also requires refiners, importers, and producers of any liquid automotive fuel to determine that fuel's "automotive fuel rating" before transferring it to a distributor or retailer. In addition, any covered entity, including a distributor, that transfers a fuel must certify the fuel's rating to the transferee either by including it in papers accompanying the transfer or by letter. Finally, the Rule requires retailers to post the fuel rating by adhering a label to the retail fuel pump and provides precise specifications regarding the content, size, color, and font of the label.

The Commission received 12 comments in response to its March 2, 2009 Federal Register Notice of changes to the Fuel Rating Rule. The comments generally supported the Rule but proposed several amendments, focusing on three key issues, only one of which was related to biodiesel or biomass-based diesel. Commenters urged the Commission to change its biodiesel fuel provisions in two ways: 1) by requiring producers to rate (i.e. specify exact blend level) biodiesel blends at or below 5 percent concentration; and 2) exempt biomass-based diesel (or non-ester renewable diesel) from the Rule.

On March 16, 2010, the Commission published a Notice of Proposed Rulemaking (NPRM) responding to the commenters' suggestions including a response to the two issues pertaining to biodiesel and biomass-based diesel. The Commission did not propose revising the Rule's biodiesel fuel provisions. The Commission explained that rating blends at or below 5 percent would unnecessarily burden producers and distributors by requiring them to rate fuel that does not require a label under EISA and that retailers blending biodiesel did

not need such rating and certifications to comply with the Rule. The Commission found that although the Rule may burden small businesses, adopting the proposed change would increase the OVERALL rating burden on industry. Currently, the Rule does not require rating or labeling of blends at or below 5 percent concentration. Under the commenters' proposed change, however, ALL manufacturers would have to rate these blends regardless of whether retailers would eventually use them to create a fuel subject to the Rule. The Commission found that the commenters had not provided evidence showing that the burden on retailers who blend a fraction of this fuel would be greater than the burden they propose putting on manufacturers to rate ALL of it. Therefore, the Commission declined to require rating on blends of 5 percent and below.

With regard to other biomass-based diesel fuels (or non-ester renewable diesel), the Commission defines biomass-based diesel as any "diesel fuel substitute produced from nonpetroleum renewable resources that meets the registration requirements for fuels and fuel additives established by the Environmental Protection Agency," without limitation, including limitations regarding co-processing. Thus, all renewable diesel blends discussed in the record are "biomass-based diesel blends" under EISA, and there is no inconsistency in treatment. Therefore, the Commission declined to exempt or distinguish any difference for non-ester renewable diesel.

Therefore, NCWM should consider adding a section for non-ester renewable diesel that mirrors the same exact wording as the biodiesel section in Handbook 130.

Consumer needs/considerations:

The needs of consumers to know the content of biodiesel in the fuel they buy falls into two general areas.

One area is the need for a consumer to know the biodiesel blend level in order to determine if that level is recommended, supported, or approved by the particular equipment they plan to use the fuel in. At present, all manufacturers support the use of B5 in diesel engine applications, while a little over 60% support up to B20 blends and an even lower percentage supporting blends over B20. The ASTM specifications mirror this, with blends up to B5 considered fungible fuels with conventional petrodiesel (ASTM D975), B6 to B20 blends falling under D7467, and there being no separate ASTM specifications for biodiesel blends over B20. The proper affixture of the FTC label on a public pump—which is now a Federal legal requirement in all states in US—is sufficient to meet this consumer need and is already supported by marketers, petroleum refiners and biodiesel producers. This need could be considered a consumer requirement, and information to facilitate the proper labeling of consumer pumps on product transfer documents seems appropriate for a model regulation by NCWM.

The second area is one of a more general desire of a customer to know how much biodiesel is in the blend they are using for reasons outside of the vehicle warranties mentioned

above. Some customers may want to only purchase B20 so they maximize their usage which is supported by their OEM, or some may wish to use a minimum of B2 to insure the fuel has proper lubricity, or some may want to use blend levels higher than B5 to maximize the emissions and carbon reductions which can be garnered through the use of higher blends of biodiesel. These needs can be considered more of a desire than a requirement, and may or may not be appropriate for a model regulation by NCWM depending on the number of customers who desire such information vs. the cost of providing it to every customer. Some consumers may want to pay additional for the information and some may not, so the greater good of the consumer needs to be taken into account.

For purposes of this discussion cold flow properties are not taken into account, as the cold flow considerations and needs by consumers are the same for biodiesel blends as they are for petrodiesel. Therefore, consumer information on cold flow properties for biodiesel blends and petrodiesel should be exactly the same and there is no need for NCWM to treat them differently.

Other needs for blend content declaration:

In some states, statewide legislation providing usage requirements or incentives have been put into place. This varies widely by state, but for the most part each piece of legislation specifies or requires a certain blend level to meet the legislation. Some states require that a minimum of 2% or 5% biodiesel be used, while others provide incentives only if the biodiesel content is over a certain value (i.e. 1%, 2%, 11%, 20%, etc.) or the incentives are based upon how much biodiesel is actually used (i.e. using 10% yields more incentives than use of 2%).

In these states, the nature of the use requirements or incentives may have already caused state legislation mandating blend level disclosure. Or, the state legislation may have provided the impetus for private companies to provide blend level declaration on product transfer documents of the exact level of biodiesel or declaration of a minimum biodiesel level as either a means to secure an incentive or as risk mitigation to potential penalties. For the most part, whether by state legislation or private market force, biodiesel blend content is already being placed on product transfer documents to meet these needs without further action by NCWM on a national basis. In addition, it is difficult for these requirements to be placed into an NCWM model regulation for the entire country as they vary widely from state to state and are constantly changing based on the legislative branch in each state.

Other considerations, RFS2:

The Congressionally mandated Renewable Fuel Standard-2 places requirements on large refiners and importers of petroleum products (so called ‘obligated parties’) to insure that increasing levels of renewable biofuels are used in the US each year. Certain requirements are placed on each individual biofuel that is eligible for the RFS2, largely based on the life

cycle reduction of CO2 compared to its petroleum based counterpart. Each obligated party is required to manufacture or purchase increasing amounts of RFS2 qualifying biofuels and see to it the increasing RFS2 mandated levels are incorporated into the fuels sold in the US each year. In addition to the other requirements mentioned, the RFS2 program contains requirements for four different categories of fuels. Biodiesel produced today fits under two of the four categories, 'Biomass Based Diesel' and 'Advanced Biofuel--Undifferentiated'. The biomass based diesel category requires 1 billion gallons in 2012, and the advanced biofuels—undifferentiated category ramps up over time eventually requiring an additional 4 billion gallons by 2022. In order to facilitate the most cost effective means to achieve the RFS2 volumes, EPA worked with the obligated parties, biofuel producers, and other stakeholders to determine how best to implement the RFS2 volumes.

As part of this effort, EPA determined they would allow obligated parties to purchase credits for renewable fuels from other obligated parties who had over-complied, or from those who used fuel but were not covered by the program as an obligated party. To manage this effectively, EPA set up a kind of renewable fuel currency called a 'Renewable Identification Number'. Renewable fuels produced or imported in the US generate a unique RIN value ranging from 1 to 2.5 RIN's per gallon and biofuels producers or importers must submit paperwork on these gallons to EPA and make the RINs available to the obligated parties. At the end of the year, each obligated party must report to EPA the RIN numbers of the renewable fuels they have incorporated and used—along with those they have purchased from others who may have over-complied—in sufficient number to meet their individual RFS2 requirement.

The buying and selling of RINs has provided a unique environment for biodiesel blenders/marketers, petroleum refiners, and biodiesel producers. From a layman's perspective, downstream fuel blenders who are not covered by RFS2 can purchase biodiesel with RINs attached and then sell the RINs on the open market to obligate parties or other traders. Alternatively, a biodiesel company can sell biodiesel with the RINs detached and sell the RINs on the open market—or a variety of choices in between. At the end of 2011, the RIN values for biodiesel were in a range equating to around $2/gallon of biodiesel. The RIN market is still relatively young, but the value of the RIN allows biodiesel to be priced similar to petrodiesel (or less than petrodiesel in some cases), or it value has been used to facilitate blending infrastructure and marketing of biodiesel blends where it was not profitable to do so previously.

The RFS2 and the resulting RIN value has heightened the discussion on blend level disclosure on product transfer documents. It will be necessary to either know the blend level of the petrodiesel before blending—or measure the blend level afterward—to determine which FTC label to utilize for a public dispenser if one is going to add more biodiesel and benefit from the RIN values facilitated by RFS2.

<u>Biodiesel blend testing technology:</u>

ASTM has approved D7371 as the referee test method for determining biodiesel blend concentration. It utilizes mid infrared equipment (FTIR-ATR-PLS Method) that is normally suited for a chemical lab environment. Method EN14078 used in Europe can also be used, as it is also a mid IR method. Several advances in rapid analysis technology more suitable for field determinations (suitcase type analysis) to analyze biodiesel blends as an alternative to the mid IR have occurred over the past two years. The following field methods are currently in use in the field and are being used as screening instruments for biodiesel blenders.

Wilks Enterprise InfraCal Biodiesel Blend Analyzer
Miniscan IRXpert (new technology to IROX Diesel)
Petrospec by Ametek

At a biodiesel technical workshop in November, one pipeline company reported positive experience with the Wilks unit in the field (approximate cost $6,000 to $7,000), with the unit being reliable and providing accurate values. Wilks is in the process of securing an ASTM test method number that will cover its technique for blend level determination, and will request it be added as an official option in the ASTM specifications once complete.

There are two additional industry developments of interest. Veeder Root is in the process of developing an option to add biodiesel blend level testing capability to their existing tank level controls and/or leak detection equipment for storage tanks. Kam Controls is in the process of commercializing an in-line piece of pipeline equipment that will provide instantaneous values of biodiesel blend content down to the ppm level. While neither of these units is commercially available at the present time, they may represent significant steps forward in blend level testing technology.

One of the major issues in this discussion is who will pay for the equipment to run the testing and how much effort the test will take to run in terms of overall 'time to result', personnel time for sampling and running the analysis, and out of pocket disposables for the test.

Continued development of quick, inexpensive field tests for biodiesel blend level determination—or of in-line or on-tank equipment that takes little time to get a result and essentially no on-going manpower—will help to facilitate the cost effective procurement and sharing of blend level data. This should be encouraged.

In addition, in the past there have been significant federal grants and funding available for support and development of alternative fuel vehicles or infrastructure. Use of this type of funding for the purchase and installation/use of biodiesel blend level testing equipment could be of significant assistance in facilitating the cost effective documentation of biodiesel content in petrodiesel.

<u>Summary: Downstream Marketer/Blender Comments/Desires for Blend Level Documentation</u>

In general, downstream marketers and blenders active in deliberations have been various state based petroleum marketers or convenience store associations and the national PMAA group. Additional interactions have occurred with individual marketers in preparation of this document.

The most common feedback from these groups in deliberations at NCWM is the desire to have the exact biodiesel blend concentration declared at all points in the distribution system. This would include invoices, bills of lading, shipping papers, and product transfer documents. Disclosure of specific blend content would help to facilitate blending more biodiesel into petrodiesel downstream as no biodiesel measuring equipment would be needed downstream. Accurate record of the amount blended, and the initial biodiesel content, would be sufficient to provide the information needed to label the product at the pump as D975, D7467 or with content higher than B20. It would also help to avoid potential over-blending (and the various liabilities associated with over-blending such as mis-labeling, equipment compatibility, or breach of supply contract) if the base D975 fuel already contained some level of biodiesel and the biodiesel added by the marketer is sufficient to put the product in a different specification category.

If exact blend level is not disclosed, marketers wishing to add more biodiesel to a D975 fuel and sell the biodiesel as a D975 fuel will need to perform an analysis on the fuel prior to blending (or after blending) as adding more biodiesel to diesel fuel already containing biodiesel may cause the fuel to be outside of the D975 ASTM specification. This sampling and testing will require each marketer to purchase equipment and provide staff to take the sample and conduct the analysis prior to adding more biodiesel. Alternatively, the marketer can take a sample and ship it to an outside laboratory for analysis. From a practical basis, marketers may not be in a position to hold fuel while the analysis is being conducted either internally or by an outside laboratory unless sufficient isolated storage is available. Marketers would also either need to pass the cost associated with the analysis onto their customer or add these costs to their expenses, neither of which are desired by the marketer unless the added value of marketing biodiesel and garnering of the RIN value outweigh the costs.

If exact blend level is not disclosed, marketers wishing to add more biodiesel to a D975 fuel and sell the biodiesel as a D7467 fuel will need to conduct an analysis prior to blending in order to determine the amount that needs to be added so the finished fuel falls between 6 and 20 % biodiesel. Alternatively, the marketer can add a minimum of 6% biodiesel or a maximum of 15% biodiesel to a D975 compliant fuel and be assured the fuel will still fall within D7467.

In areas where there is significant downstream blending, it may be more cost effective for the consumer for the terminal or bulk supplier to purchase the testing equipment and conduct the blend level analysis for downstream petroleum marketers who wish to blend in

more biodiesel than for each downstream marketer to purchase the same piece of equipment and conduct the analysis themselves.

Summary: Upstream Petroleum Refiner Comments/Desires

In general, upstream petroleum refiners active in deliberations have been individual refiner companies and the API. Additional interactions have occurred with the pipeline companies as part of the development of this document.

The most common feedback from this sector is for the inclusion of ranges of biodiesel content consistent with and necessary to meet the FTC required labeling provisions, but not the exact blend level. In addition, the blend range should not be required on all transfer documents—only those documents necessary for their customers to be able to label the pump properly. Requiring the disclosure of exact biodiesel content would mean taking a sample and re-analyzing for blend content every time two D975 fuels were blended or co-mingled, or every time two D7467 fuels were blended or co-mingled—regardless of whether additional biodiesel will be added downstream. This co-mingling can happen at a refinery storage tank, at a pipeline terminal tank, at a bulk blending tank, or through various other activities of the downstream marketers. Allowance of co-mingling of product meeting the same specification without re-analysis is a key factor in reducing the cost to the end user while still providing fuels that meet the required ASTM specifications.

This market sector believes if an entity receives a D975 fuel and chooses to blend in more biodiesel, then it should be that entity's responsibility—or their liability—for determining whether the fuel remains a D975 fuel, should be classified as D7467, or classified as over B20. To require exact blend level disclosure on all diesel fuel would place the cost burden on all diesel consumers, whether or not more biodiesel was being added to the fuel they receive. At present, there are many more cases where diesel fuel is co-mingled than there are cases where more biodiesel is planned for blending into petrodiesel. Exact blend level disclosure—and the resulting additional testing it would require—could increase the cost of fuel to many customers for the benefit of relatively few. This market sector also brought up the issue of whether the FTC regulation (16 CF 306.4) preempts state laws that are not the same as the FTC rules.

Blends up to B5 are commonly transported in pipelines in Europe, including those that carry jet fuel provided the biodiesel found in jet fuel is no higher than 5 ppm. Biodiesel blends are also being transported via pipeline in the US, but only on pipelines that do not carry jet fuel at present as the 5 ppm level in jet is harder to maintain in the US pipeline system. Work is underway to increase the allowable level of biodiesel in jet fuel to 100 ppm, which may be sufficient for more common use of biodiesel blend transport in US pipelines that also carry jet fuel—especially as biodiesel volumes rise due to the RFS2. Pipeline transport is the least expensive means of fuel transport, and as the biodiesel industry grows refiners expect more biodiesel blends will be transported on the US pipeline system.

If the exact blend level within each grade of biodiesel (D975, D7467, over B20) is required to be disclosed then each pipeline terminal tank, bulk blending tank, or other location throughout the downstream distribution chain will need to perform an analysis on the fuel every time product is sold from that tank if new fuel has been introduced since the last test. This will require the tank owner to purchase testing equipment and provide staff to take the sample and conduct the analysis prior to adding more biodiesel. Alternatively, the tank owner can take a sample and ship it to an outside laboratory for analysis. From a practical basis, the tank owner may not be in a position to hold fuel while the analysis is being conducted either internally or by an outside laboratory unless sufficient isolated storage is available. It may also be very difficult to secure samples from many of these tanks as they aren't normally sampled, the tanks may be stratified with fuels of different batches with differing biodiesel concentrations (all meeting specification), or the tanks may be manifolded where the product going to the rack actually comes from several tanks at the same time each with different biodiesel concentrations.

Tank owners would also either need to pass the cost associated with the analysis onto their customer or add these costs to their expenses, neither of which are desired by the tank owner. This is especially true when the tank owner does not derive any of the financial benefit from the subsequent blending of biodiesel downstream.

Alternatively, tank owners can stipulate that no biodiesel be contained in pipeline shipments or incoming diesel fuel loads they receive (and thus avoid the need for testing equipment or sampling) or they can segregate storage tanks or build new tanks for biodiesel blends of sufficient capacity and design (i.e. recirculation or in tank stirring) to be able to sample and analyze for biodiesel content prior to shipment to a customer.

Options for Consideration:

At a minimum, in order to meet federal biodiesel labeling requirements sufficient information should be provided by the seller to allow the placement of a proper FTC label should the buyer choose to market the fuel purchased to an end consumer. Therefore, the absolute minimum required to meet this need is to identify whether the fuel falls under D975 (i.e. B5 or less), D7467 (i.e. B6 to B20) or whether it fall over the B20 level. The current wording in Handbook 130 contains this information, so any future wording should also contain at least this minimum information.

If more biodiesel is to be added to petrodiesel, the biodiesel content in the existing fuel will either need to be known or measured at some point, or the fuel will need to be measured for biodiesel content after blending. To do so will require added expenses, additional record keeping, or both.

The question in front of NCWM is whether it is in the best interest of the consumer to be more prescriptive on how this blend level information should be managed and to recommend that to the entire country via Handbook 130, whether the decision on how

prescriptive should be left to individual states, or whether it is in the best interest of the consumer to let the management of that information be left to the private market.

In order to modify Handbook 130, and thus make a recommendation for the entire country, all of the above information should be taken into account to help determine what is in the best interest of the consuming public.

There have been several options laid out or suggested for wording that would address various needs or requests for biodiesel blend content disclosure as model language for the entire country in Handbook 130. As a starting place for more detailed discussion and negotiation, all the general options—and a few new ones—are outlined below:

A. Add a requirement for specific blend level disclosure on all BOL, PTD, invoices, shipping papers or other documents for all biodiesel blends regardless of biodiesel level.
B. Requiring identification of the range of biodiesel in the fuel on all BOL, PTD, invoices, shipping papers or other documents but not the exact level (i.e. contains B1 to B5—D975, contains B6 to B20—D7467, contains over B20)
C. Requiring either A or B on only some of the documents but not on all BOL, PTD, invoices, shipping papers or other documents
D. Require B, as well as documentation of any biodiesel intentionally added or known to be in the fuel for blends less than B5
E. Require A, but provide an exemption for blends below B5, with or without the 'intentionally added or know to be in the fuel' wording
F. Require A, but provide an exemption for some de minimis level of biodiesel.
G. Keep the current Handbook 130 wording as-is, with additional wording that the most economical way to meet this need varies depending on local conditions and is best left to the market to determine.
H. Requiring B, with additional wording that individual states may find more prescriptive guidance to be in the best interest of the consumer.
I. Require A or B, with added clauses similar to that for E85 that would allow blends up to B25 to be considered to fall within the FTC labeling requirements.