Appendix D

NIST Handbook 130 – Uniform Engine Fuels and Automotive Lubricants Regulation

Item:

237-1: 2.1.2. Gasoline-Oxygenated Blends

Table of Contents

THIS PAGE INTENTIONALLY LEFT BLANK

Colonial Pipeline Company

January 20, 2012

Mr. Ron Hayes

Colonial Pipeline objects to aligning the RVP 1.0 psi relief in HB 130 with ASTM D4814. D4814 does not address the 1.0 psi for RVP during Non-VOC periods that the EPA addresses. It is Colonial 's understanding that all states along our system grant a 1.0 psi waiver for Non-VOC controlled RVP with the exception of Virginia, which adopts the latest version of HB 130. If this proposal were to go into effect, it would create a unique fuel to the State of Virginia markets.

The Northeast is already seeing multiple refineries shut in, and creating a unique fuel for one state would constrain a supply system and possible create shortages to the consumer.

Regards,

Keith Penn
Quality Assurance Coordinator

Brian Knapp

Marketing Policy Advisor, Downstream

1220 L Street, NW
Washington, DC 20005-4070
USA
Telephone 202-682-8172
Fax 202-682-8051
Email knappb@api.org
www.api.org

January 19, 2012

Laws & Regulations Committee c/o
Judy Cardin, Chairwoman
Wisconsin Weights & Measures PO Box 8911
2811 Agriculture Drive
Madison, WI 53708-8911

Fuels and Lubricants Subcommittee c/o
Ronald G. Hayes, Chairman Missouri Weights & Measures
PO Box 630
1616 Missouri Boulevard
Jefferson City, MO 65102

Re: 2012 Interim Meeting – NCWM Publication 15: Item 237-1
NIST Handbook 130 – Uniform Engine Fuels and Automotive Lubricants Regulation, Section 2.1.2 – Gasoline-Oxygenated Blends

Dear Committee Chairs:

I write today to clarify and expand on the American Petroleum Institute's (API) comments made at the Fuels and Lubricants Subcommittee (FALS) Meeting during the 2011 Annual NCWM Meeting in Missoula, Montana regarding changes to Handbook 130 Section 2.1.2 Gasoline-Oxygenated Blends.

The current NIST Handbook 130 provides a 1.0 psi RVP allowance for 9-10 vol% ethanol during EPA RVP control period (summer) and a 1.0 psi RVP waiver during the remainder of the year for blends of 1-10 vol% ethanol. At the 2011 NCWM Annual Meeting, the FALS provided a new draft proposal that would simply reference the ASTM standard and delete Sections 2.1.2 and 2.1.3.

Removal of the 1 psi RVP waiver for non-VOC gasoline by NCWM would reduce the available gasoline pool by an estimated 2.5 vol%. Additionally, the current 1 psi RVP waiver for E10 has been in Handbook 130 for nearly 20 years, and allowing it to remain preserves the status quo. This waiver has been thoroughly vetted by the states and industry. It was supported by state regulators, the automotive industry and the ethanol industry.

By the end of this January, NIST Handbook 130 and ASTM D4814, Standard Specification for Automotive Spark-Ignition Engine Fuel, will be harmonized for two of the three volatility properties: T 50 min and TV/L = 20. It is requested that for the third volatility property, RVP, the 1.0 psi RVP waiver for non-VOC gasoline be allowed to remain in place until ASTM takes action.

API appreciates the opportunity to provide these further comments, and would be pleased to provide additional information regarding our views on this proposal. Please contact me at (202) 682-8172 if you have any questions.

Sincerely,

Brian Knapp

Madam Chair, L&R Committee Members, Delegates and Associate Members,

My name is Win Gardner. I'm Fuels Quality Manger at ExxonMobil and I appreciate the opportunity to comment on item 237-1regarding gasoline oxygenate blends. I'm the vice chair of the volatility section of the committee at ASTM which deals with RVP and other volatility properties. And, I have been a member of the Fuels and Lubricants Subcommittee since its inception in the early nineties and worked with Ron Hayes, Curt Williams, Randy Jennings and a few others in this room to hammer out compromise positions on issues like the one we face here. I have always appreciated the willingness of this group to come to middle ground in order to move things forward.

ExxonMobil is opposed to the adoption of the language in Publication 16 for item 237-1.

You've been advised that the FALS did not reach consensus on alternate language for this item. A vote, taken in May, offered three options and FALS members were asked to list their preferred option, other options which were acceptable and those that were unacceptable. The options were... 1) to do nothing, 2) to adopt the language In Pub 16 and a 3) to adopt one that would provide RVP allowances for ethanol blends. There were 20 members who submitted votes.

While no single option garnered enough Preferred and Acceptable votes to stand out against the other options, there was consensus on all of the key aspects of this issue.

Elimination of the 10% ethanol cap - 18 of the 20 members voting found elimination of the 10% ethanol cap to be either preferred or acceptable.

RVP allowances for ethanol blends - 17 of the 20 members voting found RVP allowances to be either preferred or acceptable, although there was disagreement regarding how much of an allowance should be allowed.

Capping Class E RVP at 15.5 psi or less - 15 of the 20 members voting supported options which limited ASTM Class E RVP to either 15 or 15.5 psi.

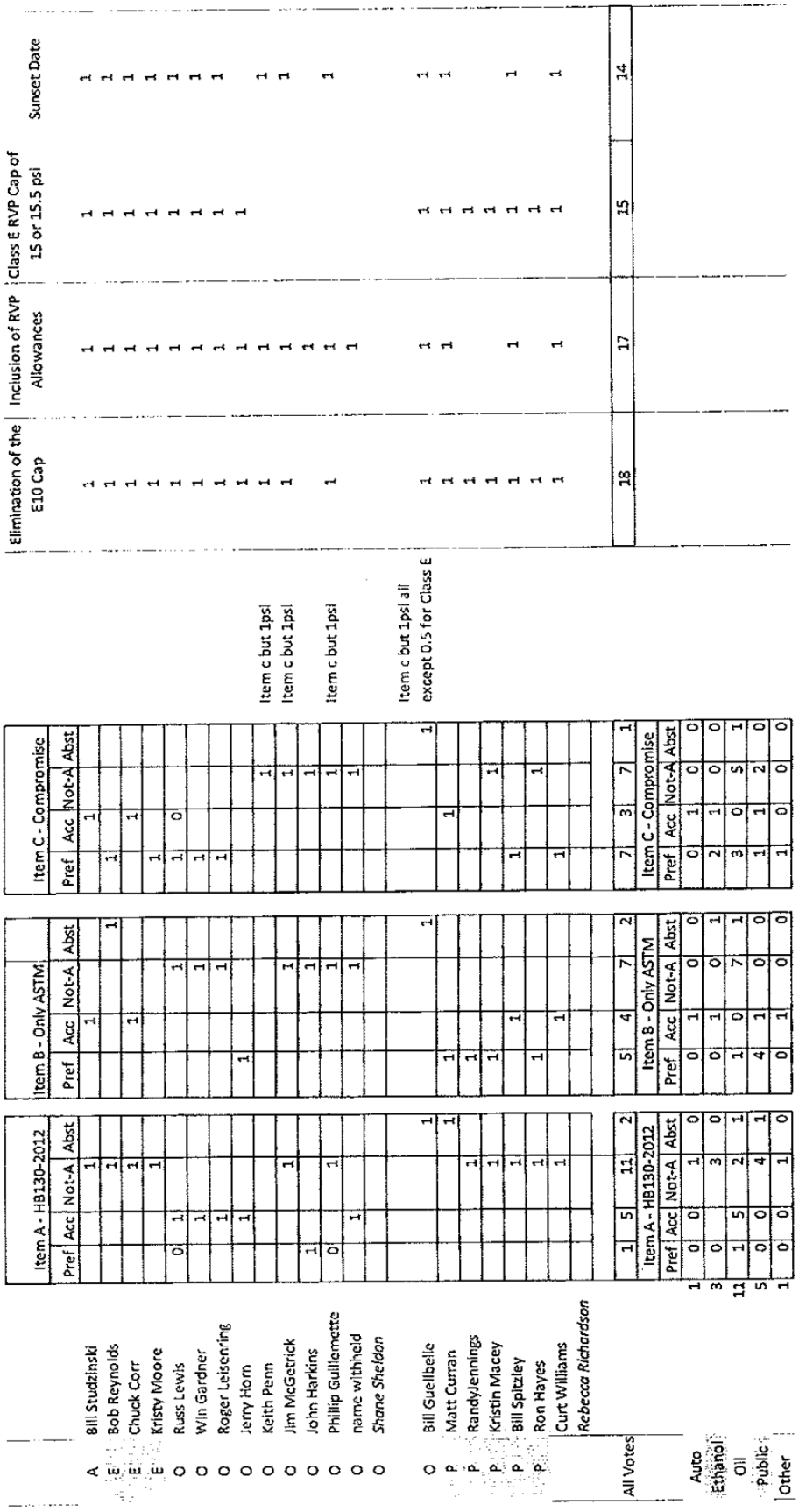
Sunset date for the expiration of RVP allowance - Another area of consensus that has been apparent in the FALS meetings is the desire to align ASTM 04814 with Handbook 130. 14 of the 20 voters expressed support the option which included the sunset date of May 1, 2016 when the RVP allowances would expire.

I've included the tally sheet for the FALS vote, modified to show support for the several key areas of consensus below.

Concluding my remarks, ExxonMobil cannot support the proposed change as it appears in publication 16. We can accept alternative language which maintains RVP allowances, eliminates the 10% ethanol cap, restricts the maximum Class E RVP and sets a sunset date to ensure alignment between Handbook 130 and ASTM 04814. We believe, and have shown, that strong consensus exists for such alternative language.

Thank you for your consideration.

K. W. Gardner
Fuels Quality Manager
ExxonMobil



		Item A - HB130-2012				Item B - Only ASTM				Item C - Compromise				Elimination of the E10 Cap	Inclusion of RVP Allowances	Class E RVP Cap of 15 or 15.5 psi	Sunset Date
		Pref	Acc	Not-A	Abst	Pref	Acc	Not-A	Abst	Pref	Acc	Not-A	Abst				
A	Bill Studzinski			1			1				1			1	1	1	1
E	Bob Reynolds			1					1	1				1	1	1	1
E	Chuck Corr			1			1				1			1	1	1	1
E	Kristy Moore			1						1				1	1	1	1
O	Russ Lewis	0	1					1		1	0			1	1	1	1
O	Win Gardner		1					1		1				1	1	1	1
O	Roger Leisenring		1					1		1				1	1	1	1
O	Jerry Horn		1			1						1		1	1	1	
O	Keith Penn											1		Item c but 1psi	1		1
O	Jim McGetrick			1				1				1		Item c but 1psi	1		1
O	John Harkins	1						1				1			1		
O	Phillip Guillemette	0		1				1				1		Item c but 1psi	1		1
O	name withheld		1					1				1			1		
O	*Shane Sheldan*																
O	Bill Guellbelle				1				1				1	Item c but 1psi all except 0.5 for Class E	1	1	1
P	Matt Curran				1	1						1			1	1	1
P	RandyJennings			1		1								1		1	
P	Kristin Macey			1		1				1				1		1	
P	Bill Spitzley			1			1			1				1	1	1	1
P	Ron Hayes			1		1						1		1		1	
	Curt Williams			1			1			1				1	1	1	1
	Rebecca Richardson																
All Votes		1	5	11	2	5	4	7	2	7	3	7	1	18	17	15	14

		Item A - HB130-2012				Item B - Only ASTM				Item C - Compromise			
		Pref	Acc	Not-A	Abst	Pref	Acc	Not-A	Abst	Pref	Acc	Not-A	Abst
1	Auto	0	0	1	0	0	1	0	0	0	1	0	0
3	Ethanol	0		3	0	0	1	0	1	2	1	0	0
11	Oil	1	5	2	1	1	0	7	1	3	0	5	1
5	Public	0	0	4	1	4	1	0	0	1	1	2	0
1	Other	0	0	1	0	0	1	0	0	1	0	0	0

Herman & Associates
3730 Military Road NW Suite 400
Washington, DC 20015
202-362-9520
202-362-9523 f MHerman697@aol.com
www.HermanAssociates.com

July 17, 2012

Ms. Judy Cardin
Chair, Laws and Regulations Committee
National Conference on Weights and Measures

Re: Item 237-1 - Gasoline-Oxygenate Blends

Dear Chairperson Cardin:

We are writing to you to express our support for the alternative proposal submitted by API for Item -237-1 on July 16, 2012.

Herman & Associates is a Washington, DC-based consulting firm with expertise in fuel specifications and regulations. Our company provides legislative and regulatory assistance to a broad spectrum of companies in the transportation and energy sector. In addition, I am a founding member of the NCWM Fuels and Lubricants Subcommittee. I also serve as Chair of the ASTM D02.A Section on Oxygenated Fuels and Components in ASTM which governs standards for ethanol, E85, Mid-Level Ethanol Blends, and other oxygenated fuels.

In particular, we support the API proposal submitted to the Laws and Regulations Committee on July 16, 2012 as an alternative proposal to that incorporated in Publication 16.

The proposed alternative provides the necessary flexibility to permit marketing of gasoline-ethanol blends while providing ASTM the time necessary to review vapor pressure specifications for gasoline-ethanol blends.

Adoption of the proposed alternative language provides a number of benefits:

• **Is Consistent With State Laws and Regulations in 46 States Providing a 1.0 psi RVP Waiver to Ethanol Blended Fuels:** Forty Six states provide ethanol blends a year-round vapor pressure waiver. This proposal would continue that treatment, while providing

the necessary lead-time for ASTM to review volatility standards for ethanol blended fuels.

• **Facilitates Ethanol Marketing:** This proposal provides the necessary flexibility to refiners and marketers by allowing ethanol to be blended with a commercially available gasoline meeting ASTM specifications without major disruptions of supply.

• **Facilitates Compliance with State and Federal Renewable Fuels Mandates:** This proposal will enable marketers to more easily comply with state and Federal Renewable Fuels Standard programs by facilitating the marketing of ethanol-blended fuels. In addition to the Federal Renewable Fuels program, many states have adopted ethanol mandates requiring the use of ethanol blended fuels.

• **Allows for ASTM Review of RVP Allowances for Ethanol-Gasoline Blends:** ASTM is a data driven organization. This proposal provides the necessary lead-time for ASTM to conduct the necessary studies in order to determine what if any changes are required to ethanol vapor pressure standards. The sunset date in the proposal provides the necessary lead-time for ASTM to conduct CRC studies, review the available data, and make determinations regarding modifications to the ASTM D4814 standard for gasoline and gasoline-oxygenate blends.

In conclusion, we support the proposal submitted by the industry and API to revise and update the wording regarding ethanol-gasoline blends in the Uniform Engine Fuels and Automotive Lubricants Regulation in NIST HB 130. Adoption of this proposal will facilitate ethanol marketing while enabling NCWM's model regulation to be aligned with the fuel specifications in 46 states throughout the U.S.

We appreciate the opportunity to provide these comments. Please feel free to contact us should you have any questions or if we can clarify any item.

Sincerely,
Marilyn J. Herman
President, Herman & Associates

ROD LAWRENCE Manager
Quality Control Magellan
Midstream Partners One
Williams Center MD 31
Tulsa, OK 74172 (918) 574-7286
rod.lawrence@magellnalp.com

January 19, 2012

Mr. Ron Hayes
Chairman
Fuels and Lubricants Sub Committee
National Conference of Weights and Measures
1135 M Street, Suite 110
Lincoln, Nebraska 68508

RE: Magellan Midstream Partners Comments – Potential Amendments to Handbook 130 – Engine Fuels and Automotive Lubricants

Dear Ron:

Thank you for the opportunity to provide comments to NCWM's Fuels and Lubricants Sub-Committee.

Background - Magellan owns and operates the nation's longest refined products pipeline system and over 80 petroleum distribution terminals. Our pipeline system transports refined petroleum products from refinery origins in TX, OK, KS, MN and WI to distribution terminals in Texas, Oklahoma, Kansas,
Missouri, Colorado, Arkansas, Illinois, Iowa, Nebraska, South Dakota, North Dakota, Minnesota and Wisconsin. Our pipeline system is connected to over 40% of the nation's refining capacity. The majority of our terminals have the storage and distribution capacity for fuel-grade ethanol.

Magellan does not generally own the petroleum products transported or stored in our system. The petroleum products are owned by our shippers and position holders. The Magellan Pipeline system is an "open-stock" system which depends upon product fungibility. The system is very efficient and appeals to a wide variety of shippers and position holders because of our ability to transport and store large volumes of a common grade of refined products. At this time, the most common grade of gasoline in our system is "N grade" – 87 octane with an RVP meeting ASTM, NCWM and state standards.

While we appreciate the desire to align NCWM's Handbook 130 with the recent EPA waivers regarding higher level ethanol blends, we believe the negative impacts to the supply and distribution of gasoline would be far greater than any benefit associated with harmonizing NCWM with EPA's recent action. Therefore, Magellan is opposed to a proposal under consideration to amend Section 2.1.2.(a)(2) which would eliminate the 1psi waiver for ethanol blends during the winter months. We are opposed to the elimination of the waiver because it would (1) create a boutique fuel in several states (2) reduce pipeline efficiency which would result in supply disruptions (3) reduce gasoline supply by requiring a reduction of RVP and (4) impact the price unsuspecting motorists pay at the pump. Lastly, we are opposed because we are not aware of technical data which would support the need to modify section 2.1.2.

Boutique Fuel – A "boutique fuel" is a specialized fuel formulation that is unique to a particular market, usually by virtue of federal, state or local laws, and that cannot be obtained from other markets in the same regional distribution system. The Energy Policy Act of 2005 (EPACT05) already limits the number of boutique fuel formulations created under Clean Air Act-mandated State Implementation Plans ("SIP" fuels) to the number of fuels available in September 2004. EPACT prohibits EPA from adding to the number of fuel formulations but allows a new formulation when an existing formulation is dropped. EPA's definition of a boutique fuel does not include specific formulations that are a result of renewable
fuel mandates; federal or local. However, the elimination of the 1psi RVP waiver would indeed create the need for a special fuel suitable for ethanol blending.

As an example, if the proposed amendment to Section 2.1.2 was enacted, the state of Kansas would automatically adopt the standard. Therefore, the RVP of gasoline suitable for sale in conventional gasoline areas in the state of Kansas would need to be reduced if a distributor chooses to blend 10% volume ethanol with the base gasoline. This would create a special or boutique fuel.

Fungibility – Our pipeline system delivers gasoline to terminals in Wichita, Topeka, Great Bend, Scott City, Olathe, St. Joseph and Kansas City. With the exception of Kansas City and Olathe, the remainder of our terminals in the state of Kansas distribute N grade gasoline (87 octane) with an RVP which meets the ASTM and state standards. The N grade gasoline can be delivered directly to retail service stations with
or without the addition of 10% volume ethanol. The elimination of the waiver under Section 2.1.2 would create the need for a new product which would be suitable for ethanol blending. In most cases, Magellan does not have adequate storage capacity to accommodate an additional grade of gasoline. A new fuel would require (1) adequate storage and (2) other modifications to the terminal piping and loading rack.

Generally, the addition of a new, special fuel formulation will decrease pipeline efficiency which can lead to increased supply disruptions.

Reduction of Gasoline Supplies – While we are not the experts in this area, the proposed amendment to Section 2.1.2 would require refiners to remove various blendstocks. The components most likely to be removed to reduce the RVP of gasoline are butane and pentanes which are lower in value than finished gasoline. Therefore, available gasoline supply is reduced which can have pricing implications for motorists.

Thank you again for providing Magellan the opportunity to provide comments to the proposed amendments to Section 2.1.2. We encourage the Sub-Committee to reject the proposed amendment at this time.

Sincerely,

Rod Lawrence

Testimony of Russ Lewis, Marathon Petroleum,
at the NCWM 2012 Annual Meeting Open Hearings on July 15, 2012 in Portland, Maine

Madam Chair, L&R Committee members, Delegates, and Associate members of NCWM – Good day.

I am Russ Lewis, a research chemist/supervisor at Marathon Petroleum that manages one of the fuel quality sections for our company. I have worked in fuels quality and quality-related issues for 24 years and am an active member of ASTM, CRC, and NCWM, among several other industry organizations. Marathon does not support the proposed language present in Publication 16 for Item 237-1. This was supposed to have been a placeholder and does not represent a consensus position of the FALS members.

You are going to hear a lot of testimony regarding Item 237-1. All with varying perspectives on what is the right thing to do as a path forward. I would like to take some time to give the background on Item 237-1 and how we got to where we are today.

On August 27, 2010, Kristy Moore of the RFA filed a Pub 15 to revise language of NIST HB 130 to remove the 10% ethanol maximum on gasoline blends. This proposal made no mention of removing the vapor pressure waiver currently in HB 130. The focus of her proposal was to remove the E10 cap from the model regulation.

Ms. Moore's Pub 15 proposal was discussed at the FALS session on Sunday during the interim January 2011 meeting but no decision/consensus was achieved on the proper language to consider at that time. The item remained informational.

Ms. Moore's proposal was again discussed at the July 2011 annual meeting during the FALS session. During this time, Randy Jennings of Tennessee suggested an alternative proposal that would focus on "ASTM D4814 only". Jim McGetrick of BP raised concern about the 1 psi vapor pressure waiver and the potential impact to production. Several other oil companies present affirmed this concern. Oil companies stated that they would need time to review Mr. Jennings alternative proposal to determine potential impacts on production and get back with NCWM. There was no consensus or vote taken during the FALS meeting to accept Mr. Jennings' proposal in lieu of Ms. Moore's as a voting item. When the minutes of the 2011 Annual meeting were published, Mr. Jennings' proposal was listed as a recommended voting item. There was discussion by several FALS members after this was published as to how this became the item moving forward in any form other than Informational.

As a result of this proposed change to the gasoline model regulation, Marathon proposed an alternative to Mr. Jennings' proposal during the annual 2011 SWMA meeting in October of that year. The Marathon proposal would have removed the ethanol cap and continued with the 1 psi waiver during non-VOC season for ethanol-blended gasoline. This was accepted during the SWMA and was recommended to NCWM as an alternative voting item at the 2012 interim meeting.

During the 2012 NCWM interim meeting in January of this year, a very long discussion was held on Mr. Jennings' Pub 16 proposal and Marathon's alternative at the FALS session on Sunday. At the conclusion of the meeting, many of those in attendance thought that consensus had been reached on a path forward that would remove the ethanol cap and keep the vapor pressure waiver in place.

At the Open Session on Monday at the 2012 Interim NCWM, FALS presented language that would have kept the 10% maximum cap in place, while keeping the vapor pressure waiver intact. This resulted in several entities speaking in opposition of the FALS recommendation.

Following the Monday open session at the 2012 Interim NCWM, compromise language based on discussions heard during the Sunday FALS and the Monday Open Session was crafted and circulated for comment to several of the stakeholders. The initial compromise language would have removed the E10 cap, kept the 1 psi waiver in place for all but Class E which would get a 0.5 psi waiver, and put in a sunset date to give ASTM to make changes to the specifications. The initial review of this proposal received general agreement with some word-smithing identified. It was reported to the L&R by the FALS chair that compromise language was being prepared and that something should be available for the annual meeting to consider in place of the Pub 16 proposal by Mr. Jennings. It was understood that this was supposed to be a placeholder for FALS to work toward consensus from the group.

Over the next several months (March – May), multiple teleconferences were held and revisions were circulated to the FALS group. On May 9th, a final compromise proposal was put forward. This language contained "staggered" vapor pressure relief for gasoline classes, removal of the E10 cap, and a sunset date for ASTM implementation. All individuals on the call were asked if they could live with the proposal. No one took exception. It was determined that FALS would send out the proposal for vote.

Once the options were circulated for voting by FALS, additional entities that had not been involved initially had the opportunity to review and weigh in on the items. Several of pipeline companies expressed concerns with the "staggered" vapor pressure approach. As a result of these concerns and apparent changes of heart by a couple of other parties that had been involved in the process, a strong consensus was not reached on any of the options presented. However, most voters were still in agreement that some form of vapor pressure relief is needed and the E10 cap should be removed.

Yesterday during the FALS session, a discussion of roughly 1.5 hours was held on this item. Many "new" stakeholders attended this NCWM as a result of the potential impact to their business. Once the discussion was wrapped up, there appeared to be a general agreement among most of the membership that some vapor pressure relief should remain in place, the E10 cap should be removed, harmonization with ASTM is needed but that time for ASTM to change the specifications should be given and that a sunset date was the appropriate mechanism for NIST Handbook 130. Although it was requested the FALS chair take a vote, no vote was taken (not even a straw vote).

My industry is not trying to impede harmonization with ASTM D4814. Rather we are asking for the time needed to generate the data required by ASTM to make changes to the vapor pressure limits in the

D4814 specifications, similar to what was done for TVL20 and T50 waivers that were previously listed in NIST Handbook 130. We have 20+ years of data suggesting that the currently allowed vapor pressure waiver is not creating customer issues. We heard during the FALS session on Sunday that the TVL20 limits now listed in ASTM further restrict the maximum vapor pressure that can be achieved with ethanol blending. Eliminating this waiver is not in the best interest of the consuming public or the private sector.

It is my opinion that consensus was never established on Mr. Jennings' Pub 16 proposal, either during the July 2011 Annual NCWM meeting or since then (including the vote in May by the FALS group which showed this option with the least amount of support). What is apparent is that if the Pub 16 Item 237-1 is accepted by this body, then significant negative and immediate impact on production and distribution will be observed in the marketplace. Removal of the vapor pressure waiver is estimated to negatively impact 840,000 gallons of gasoline blending components per day during the non-VOC blending period for my company alone.

A compromise position can be reached that will allow for the removal of the E10 cap, keep in place vapor pressure relief that has been in effect for over 20 years with minimal disruption to production/distribution, and put in place a sunset date for implementation of ASTM specification changes which would then harmonize ASTM D4814 and NIST Handbook 130.

With that said, I strongly encourage this body to reject the Pub 16 proposal and consider alternative language that was presented by Prentiss Searles of API.

Thank you for allowing me the opportunity to present this information today.

Russ Lewis
Supervisor
Process Reliability and Development
Refining Analytical & Development
Marathon Petroleum Company