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Unapproved Minutes of the May 1, 2019
Technical Guidance Committee Fuels Task Force Conference Call.

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The meeting was called to order by Chairman Lochte at 9:00 AM Central Time.

A copy of the agenda is included as attachment 1.

A list of attendees is included as attachment 2.

The Task Force discussed aromatic limits for use with ASTM Test Method D5769. Proposed limits were provided and after some discussion, the Task Force agreed to 31-34 as the limit for total aromatics in the III and VI fuel specifications. Haltermann representatives were not available during this meeting and as such, the DCA supplier and red dye information were not available. The specification for VI fuel was agreed to by the Task Force, pending the alternative olefins and aromatics measurement data by

D6839 due from Haltermann Carless and the dye and DCA information from Haltermann Solutions. These specifications (see attachments 3 and 4) will be forwarded to the panels for approval and submission to the TMC for placement on the website after final approval.

The task force discussed the proposed specification for Sequence III fuel. The task force agreed to some changes and inclusion of alternate methods for both Sequence III and Sequence VI fuel. Haltermann Carless agreed to provide data to document Test Method D6839 performance relative to Test Method D5769 for aromatic speciation. The finalized specification will be reviewed and approved during a subsequent call.

The meeting was adjourned at 11:10 AM.

Attachment 1

TGC Fuels Task Force Agenda

May 1, 2019

9:00 – 10:30 Central Daylight Savings Time

Web Ex

Topics

1. D1319 is no longer widely available, it must be replaced in the fuel specifications for gasoline engine oil testing regarding aromatics measurement.

Each company is to review the data presented at the last meeting and be prepared to suggest aromatic limits per D5769. Data is attached to this meeting notice.

2. There are some comments to the sequence III and Sequence VI fuel specifications that were proposed last year. In the last meeting Gage and Haltermann Carless reviewed their comments. The comments were distributed with meeting notice for April 15 meeting.
 - a. SwRI spreadsheet on proposed specification to address the various concerns.
 - b. D1319 is no longer widely available, it must be replaced in the fuel specifications for gasoline engine oil testing regarding olefins measurement
 - a. Previously proposed and accepted was use of D6550 as a more accurate measure of olefins, data was recorded as report only.
 - c. Discuss replacing D1319 with D6550 for olefins, and what the limit should be. Current limit for D1319 is 10%, proposed limit is 2%. Data from Haltermann Solutions indicates that over 14 batches none were over the 1% threshold as measured by D6550.

Discuss the comments, modify as needed, and recommend to the various surveillance panels for approval so that they be posted to the TMC website.

Attachment 2

AttendeesTGC meeting / May 1, 2019

1 Mike Lochte (SwRI)	Y
2 William Buscher (Intertek)	
3 Alfonso Lopez (Intertek)	Y
4 Rich Grundza (ASTM)	Y
5 Sean Moyer (ASTM)	Y
6 Mark Cooper (Chevron Oronite)	
7 Jason Bowden (OH Technologies, Inc.)	Y
8 Jim Carter (Gage Products)	Y
9 Tracey King (Haltermann Carless)	Y
10 Patrick Lang (SwRI)	Y
11 Travis Kostan (SwRI)	Y
12 Becky Nelson (SwRI)	Y
13 Marissa Macagnone (BASF)	Y
14 Indresh Mathur (Haltermann Solutions)	
15 Rebecca Monroe (GM)	
16 Jonathan VanScoyoc (Chevron Phillips Chemical Co.)	Y
17 Bob Patzel (Gage Products)	Y
18 Bob Campbell (Afton)	Y
19 Tim Cushing (GM)	Y
20 Chris Taylor	Y
21 James Harlow (VP Racing Fuels)	
22 James Moritz (Intertek)	
23 Jim Linden (Linden Consultant)	
24 Mark Sutherland (TEI)	
25 Michael Madalian (Infineum)	
26 Mark Overaker (Haltermann)	
27 Jens Schaak (Haltermann Carless)	
28 Scott Parke (ASTM)	
29 Nancy Somers (GM)	
30 James Matasic (Lubrizol)	Y

Attachment 3

Seq. VI Lube Certification Fuel

1-May-19

TEST	METHOD	UNITS	Seq. VI Specs		
			MIN	TARGET	MAX
Distillation - IBP	ASTM D86	°C	23.9		35.0
5%		°C			
10%		°C	48.9		57.2
20%		°C			
30%		°C			
40%		°C			
50%		°C	93.3		110.0
60%		°C			
70%		°C			
80%		°C			
90%		°C	151.7		162.8
95%		°C			
Distillation - EP		°C			212.8
Recovery		vol %		Report	
Residue		vol %		Report	
Loss		vol %		Report	
Gravity @ 60°F/60°F	ASTM D4052	°API	58.7		61.2
Density @ 15° C	ASTM D4052	kg/l	0.734		0.744
Dry Vapor Pressure Equivalent	ASTM D5191	kPa	60.1		63.4
Carbon	ASTM D3343	wt fraction		Report	
Carbon	ASTM D5291	wt fraction		Report	
Hydrogen	ASTM D5291	wt fraction		Report	
Hydrogen/Carbon ratio	ASTM D5291	mole/mole		Report	
Oxygen*	ASTM D4815	wt %			0.2
Oxygenates Ethanol	ASTM D4815	%		Report	
MTBE		%		Report	
ETBE		%		Report	
Methanol		%		Report	
Sulfur	ASTM D5453	mg/kg	3		15
Composition, aromatics	ASTM D5769****	vol %	31.0		34.0
C6 aromatics (benzene)	ASTM D5769	vol %			1.00
C7 aromatics (toluene)	ASTM D5769	vol %		Report	
C8 aromatics	ASTM D5769	vol %		Report	
C9 aromatics	ASTM D5769	vol %		Report	
C10+ aromatics	ASTM D5769	vol %		Report	
Composition, olefins	ASTM D6550 ****	wt%			2.0
Lead*	ASTM D3237	mg/l			2.6
Manganese*	ASTM D3831	g/gal			0.01
Phosphorus*	ASTM D3231	mg/l			1.3
Silicon *	ASTM D5185	mg/kg			4
Particulate matter	ASTM D5452	mg/l			1

Oxidation Stability	ASTM D525	minutes	1000		
Copper Corrosion	ASTM D130				1
Gum content, washed	ASTM D381	mg/100mls			5.0
Gum content, unwashed	ASTM D381	mg/100mls	7.0		20.0
Research Octane Number	ASTM D2699		96.0		
Motor Octane Number	ASTM D2700			Report	
R+M/2	D2699/2700			Report	
Sensitivity			7.5		
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report	
Gross Heating Value, btu/lb	ASTM D240	btu/lb		Report	
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report	
Water and Sediment	ASTM D2709	vol%			0.01
Color **	VISUAL	1.75 ptb		Red	
Top Tier Additive***		69.3 ptb		Report	

* no intentional addition of these elements

** dye product_____

*** top tier additive product_____

**** or use D6839 for everything measured by D5769 and D6550

Seq III, IX, and X Lube Cert Gasoline

1-May-19

TEST	METHOD	UNITS	Seq. III Specs		
			MIN	TARGET	MAX
Distillation - IBP	ASTM D86	°C	23.9		35.0
5%		°C			
10%		°C	48.9		57.2
20%		°C			
30%		°C			
40%		°C			
50%		°C	93.3		110.0
60%		°C			
70%		°C			
80%		°C			
90%		°C	151.7		162.8
95%		°C			
Distillation - EP		°C			212.8
Recovery		vol %		Report	
Residue		vol %		Report	
Loss		vol %		Report	
Gravity @ 60°F/60°F	ASTM D4052	°API	58.7		61.2
Density @ 15° C	ASTM D4052	kg/l	0.734		0.744
Dry Vapor Pressure Equivalent	ASTM D5191	kPa	60.1		63.4
Carbon	ASTM D3343	wt fraction		Report	
Carbon	ASTM D5291	wt fraction		Report	
Hydrogen	ASTM D5291	wt fraction		Report	
Hydrogen/Carbon ratio	ASTM D5291	mole/mole		Report	
Oxygen*	ASTM D4815	wt %			0.2
Oxygenates Ethanol	ASTM D4815	%		Report	
MTBE		%		Report	
ETBE		%		Report	
Methanol		%		Report	
Sulfur	ASTM D5453	mg/kg	3		15
Benzene	ASTM D3606	vol %			1
Composition, aromatics	ASTM D5769***	vol %	31.0		34.0
C6 aromatics (benzene)	ASTM D5769	vol %			1.0
C7 aromatics (toluene)	ASTM D5769	vol %		Report	
C8 aromatics	ASTM D5769	vol %		Report	
C9 aromatics	ASTM D5769	vol %		Report	
C10+ aromatics	ASTM D5769	vol %		Report	
Composition, olefins	ASTM D6550***	wt%			2.0
Lead*	ASTM D3237	mg/l			2.6
Manganese*	ASTM D3831	g/gal			0.01
Phosphorus*	ASTM D3231	mg/l			1.3
Silicon *	ASTM D5185	mg/kg			4
Particulate matter	ASTM D5452	mg/l			1

Oxidation Stability	ASTM D525	minutes	1000	
Copper Corrosion	ASTM D130			1
Gum content, washed	ASTM D381	mg/100mls		5.0
Gum content, unwashed	ASTM D381	mg/100mls		10.0
Research Octane Number	ASTM D2699		96.0	
Motor Octane Number	ASTM D2700			Report
R+M/2	D2699/2700			Report
Sensitivity			7.5	
Net Heating Value, btu/lb	ASTM D3338	btu/lb		Report
Gross Heating Value, btu/lb	ASTM D240	btu/lb		Report
Net Heating Value, btu/lb	ASTM D240	btu/lb		Report
Water and Sediment	ASTM D2709	vol%		0.01
Color **	VISUAL	1.75 ptb		Red

*no intentional addition of these elements permitted.

** Red dye _____ at treat rate specified.

***or use D6839 for everything measured by D5769 and D6550